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ABSTRACT

A survey of educational programs and services provided to limited-English-proficient (LEP) students in a sample of 21 New York City (New York) public schools (six elementary, eight middle, and seven high schools) is reported. The report describes services as reported by the schools and compares them to recommendations made in relevant research literature. An introductory chapter summarizes the survey design and findings, and the second chapter outlines the survey's methodology. A review of effective practices in bilingual and English-as-a-Second-Language (ESL) education is presented in chapter three. Chapter four presents survey sample characteristics, an overview of bilingual/ESL services, and characteristics of the teacher sample. The fifth chapter summarizes instructional design patterns, including curriculum, grouping for instructional purposes, and frequency of instruction. Teaching practices (English-language instructional approaches, content-area methods, and instructional materials) and non-instructional components (support services for LEP students, staff development, and parental involvement) are addressed in the two subsequent chapters. Finally, an examination of school climate looks at the status of bilingual and ESL programs, the mainstreaming process, and school-based planning. Conclusions and recommendations are offered. Supporting documentation are appended. Contains 74 references. (MSE)

ED 377 681

OER Report

A PILOT STUDY OF SERVICES TO STUDENTS OF LIMITED ENGLISH PROFICIENCY IN NEW YORK CITY PUBLIC SCHOOLS (Revised)

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A PILOT STUDY OF SERVICES TO STUDENTS OF LIMITED ENGLISH PROFICIENCY IN NEW YORK CITY PUBLIC SCHOOLS
(Revised)

December, 1991

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7/26/91

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Finally, Tina Koster valiantly produced the numerous evolving versions of the report.

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EXECUTIVE SUMMARY

This study takes the first step towards the systematic evaluation of services to students of limited English proficiency (LEP) in the New York City Public Schools by reviewing the research literature for indications of effective programs and instructional practices, and by documenting the variety of services and instructional approaches found in a pilot sample of New York City public schools.

This study was designed to address the following questions for schools in the pilot sample:

- What kinds of bilingual/E.S.L. services do these schools offer LEP students?
- What bilingual/E.S.L. instructional practices do these teachers use?
- Which practices do they report as particularly effective?
- How do these practices relate to what current research tells us are effective educational practices for LEP students?
- What non-instructional supports do these schools offer LEP students (e.g., counseling, tutoring)?
- Are teachers' staff development needs being met? Do they get support in meeting the needs of LEP students in their classes? From whom?

The study was implemented in a sample of 21 public schools in New York City -- six elementary, eight middle, and seven high schools. (The uneven numbers of schools in the sample were the result of school withdrawals from the study at points too late in the research to permit replacement.) They were chosen to maximize variation in school contexts, school sizes and characteristics, as well as the numbers and types of LEP students served.

SCOPE OF STUDY

The original study design called for comparing schools which varied in the achievement outcomes for their LEP students, but which matched on contextual and demographic characteristics. This proved difficult to do because of the limited availability of outcome data for the students served, and because of the variability of the schools themselves. As a result, the study focuses on a description of services as reported, and compares those reported to the recommendations of the research literature.

SUMMARY OF FINDINGS

Most of the 21 sample schools were high-minority, low-achieving schools located in low-income neighborhoods. The schools offered a range of bilingual and/or E.S.L. services to varying proportions of LEP students as specified by the mandates of New York City's Aspira Consent Decree (1974) and the Office of Civil Rights Agreement/Lau Plan (1977). Highlights of findings about instructional patterns for LEP students in the 21 pilot schools include the following:

Provision of Services

- Languages of Bilingual Services. Bilingual services were most commonly available to Spanish-speaking students, primarily due to their greater numbers. Bilingual classes for Chinese and Haitian-speaking LEP students were available in a few schools. This seemed to follow the citywide pattern of availability of bilingual services for different native language groups (i.e., Spanish, Chinese, Haitian, Russian, Greek, French, Arabic, Vietnamese). For other language groups, in most schools, only E.S.L. services were available.

- Classroom Language Differences. The educational challenges faced by teachers of monolingual "regular" and bilingual classes differed. Teachers of bilingual classes taught LEP students who all spoke the same native language, e.g., Spanish, Chinese, or Haitian Creole. In contrast, teachers of monolingual classes (both self-contained and departmentalized) were frequently confronted with the challenge of teaching LEP students from a variety of native language backgrounds -- all of which were likely to differ from the teacher's own linguistic and cultural background. These teachers frequently indicated that they had LEP students from two or more native language backgrounds in the same classroom; seven teachers taught classes containing LEP students from six or more native language backgrounds.

- Teacher Experience/Certification. The vast majority of the responding teachers were appropriately licensed and relatively experienced. Administrators considered bilingual education to be the area of greatest teacher shortage.

Instructional Design Patterns

- Grouping for Instruction. Students in bilingual classes were most likely to be grouped for instructional purposes on the basis of Language Assessment Battery (LAB) test scores. Additional grouping on the basis of native language proficiency and mastery of content area material was most likely to occur in bilingual classrooms. At the same time,

most teachers -- in both bilingual and monolingual classes -- reported that they tried to modify instruction for LEP students at different cognitive levels, even though they might not group them.

- Classroom Organization. There was little evidence of the use of alternative types of classroom organization to facilitate learning as recommended in the research literature (e.g., cooperative learning, classwide peer tutoring, or individualized instruction). At the same time, teachers frequently commented that they used an informal "buddy system" for LEP students which they found to be an effective teaching practice.

Teaching Strategies

- Range of Strategies Used. Teachers (both monolingual and bilingual) most often reported that they used a range of instructional methods and approaches to teach LEP students. This was true both for E.S.L. and content area instruction. E.S.L. instructional approaches varied somewhat with the type of classroom setting and with the school level.

  Bilingual teachers generally had access to a wider range of methods since they could communicate with LEP students in their native language and provide materials in the students' native language. Bilingual teachers, both elementary and middle, were likely to report more periods of E.S.L. instruction per day than monolingual teachers.

- Effective E.S.L. Approaches/Strategies. E.S.L. approaches/-strategies designed to facilitate social communication skills and cognitive-academic language development seemed to be used most frequently in the pilot sample classrooms. Current research and practice in second language acquisition have shown that communication approaches which incorporate all four language skills (listening, speaking, reading, and writing), and promote cognitive development and content area learning are the most effective means to promote LEP student achievement. Suggested approaches include the Natural approach, the Notional/Functional approach, the Language Experience approach, and the Whole Language approach. Teachers also mentioned the "Audiolingual approach" as effective, even though it is frequently cited in the research literature as a less effective approach because of its reliance on more mechanical, behavioristic, and less communicative student work.

- Classroom Materials. Although teachers in different types of classroom settings used a wide range of materials for teaching LEP students, many stressed that they urgently needed more specialized classroom materials appropriate for

LEP students. Teachers of "mainstream" classes were least likely to have sufficient materials for LEP students or to have input into the purchase of such materials.

Non-Instructional Components

- Support Services. LEP students in bilingual classes were more likely to receive support services than those in monolingual classes (mainstream or E.S.L.) since full bilingual programs generate funding for support services. LEP students appeared to receive very little in terms of support services or follow up after being mainstreamed. There also appeared to be very little "formal" linking of LEP students to resource staff such as guidance counselors or mental health professionals.

- Staff Development. Schools and districts appeared to provide teachers of bilingual classes with more training in teaching LEP students than teachers of monolingual "mainstream" classes. Administrators overwhelmingly reported that all types of teachers of LEP students would benefit from more training, especially in E.S.L. instructional approaches.

- Parental Involvement. Most schools sent important notices to LEP students' parents in their native language, and all schools reported that their school had a staff person who could communicate with parents in their native language. However, there was not much evidence of home-school linkages, except through notices and the two standard yearly parent-teacher visits. Bilingual teachers reportedly had more contact with LEP students' parents, either formally or informally, than teachers of monolingual "mainstream" classes.

School Climate

- Status of Bilingual/E.S.L. Services. How well bilingual/E.S.L. services were integrated into the school as a whole varied tremendously from school to school. The school staff's perceptions ranged from "highly integrated" to "highly isolated."

- Mainstreaming of LEP Students. Teachers varied with regard to their perceptions of LEP students' "success" after being mainstreamed. Most teachers reported that they did not follow former LEP students' progress, and their responses suggested that most schools did not monitor their progress after they were mainstreamed.

- School-Based Planning. Nearly all of the 21 school administrators reported that their school had a planning committee, although teachers in the same school were not always aware of its existence. Teachers of bilingual and E.S.L. classes were more likely than teachers of monolingual "mainstream" classes to report that their school's committee included planning for bilingual and E.S.L. services.

CONCLUSIONS AND RECOMMENDATIONS

The 21 sample schools were found to be heterogeneous in many respects (e.g., LEP student populations, configurations of bilingual and E.S.L. services, school climate, etc.). Both the findings from the field survey and the effective practices highlighted in the research literature indicate that full bilingual programs provide the most effective instructional approach for LEP students. At the same time, the changing student demographics in the New York City Public Schools, along with the proliferation of languages spoken by LEP students, indicate a need to provide classroom teachers at all levels with research-based staff development in E.S.L. methodologies.

In addition, the findings from the schools participating in this study, as well as effective practices discussed in the research literature, suggest numerous ways in which these and other New York City schools can provide LEP students with more effective bilingual and E.S.L. services as part of a comprehensive multicultural educational strategy. Within the parameters of available resources, the evaluation team for this study suggested the following recommendations:

(1) Document and track the academic achievement of LEP students more systematically on a longitudinal basis;

(2) Continue and expand the monitoring of schools for compliance with current regulations regarding delivery of bilingual/E.S.L. services to LEP students;

(3) Facilitate bilingual/E.S.L. teacher certification;

(4) Expand the repertoire of research-based E.S.L. teaching strategies for all teachers of LEP students;

(5) Initiate more transitional bilingual programs for LEP students in the 21-40 LAB percentile range as specified in the Chancellor's Special Circular No. 42;

(6) Create more self-contained E.S.L. classes when full bilingual programs are not feasible and experiment with new schedules and organizations through SBM/SDM.

(7) Expand school-based networks of support services;

(8) Facilitate involvement with the school for parents of LEP students;

(9) Follow up on the progress and continuing needs of mainstreamed LEP students;

(10) Encourage school-based planning for bilingual/E.S.L. services; and

(11) Develop further research studies of LEP student instruction.

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I. INTRODUCTION

BACKGROUND

Nearly half of the students who enter New York City's public schools in the early grades come from a home where a language other than English is spoken. While some of these are sufficiently proficient in English to participate effectively in classrooms in which English is the sole language of instruction, many are limited English proficient[1] (LEP) students, and are entitled to bilingual/E.S.L. instructional services under New York City's Aspira Consent Decree (1974) or the Office of Civil Rights Agreement/Lau Plan (1977).

In fall 1990, the total number of entitled LEP students in the New York City public schools in kindergarten through grade 12 stood at 110,245 -- about 12 percent of the total school population. Of these, 67,288 attended elementary schools, 16,423 attended middle schools, and 26,534 attended high schools (BESIS, 1989-90). The education of language-minority students, particularly those among them who are LEP, has posed a great challenge for educators. Both educators and the general public have had many questions about the characteristics of these students and their academic progress.

Mandates for bilingual/E.S.L. instruction in the New York City public schools have existed since 1975. Data documenting

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[1]A LEP student is one whose English language proficiency is too limited to effectively participate in a monolingual English class, as defined by a Language Assessment Battery (LAB) score below the 40th percentile.

LEP students' demographic characteristics, achievement levels, and the configurations of services they receive are currently collected on a citywide basis. In addition, evaluation data based on student outcomes are collected on an individual program basis. However, there has been no systematic overall descriptive documentation of classroom teaching practices.

PREVIOUS TRACKING OF LEP STUDENTS

In 1982, the Office of Research, Evaluation, and Assessment (then the Office of Educational Evaluation) of the New York City Public Schools created a database to begin tracking LEP students' progress over time. The original database consisted of all those students (76,000) who were tested with the Language Assessment Battery (LAB) in the spring of 1982. The LAB is administered to all entering language-minority (L.M.) students to determine whether they are of limited English proficiency (LEP), and are therefore entitled to bilingual/E.S.L. services under New York City's Aspira Consent Decree (1974) or Office of Civil Rights Agreement/Lau Plan (1977).

Because so little was known about the characteristics of LEP students, the task of the first report (Office of Educational Evaluation, 1984) was to describe them in terms of native language, time in an English-language school system, country of birth, where they were to be found in New York City, and their overall educational achievement patterns in English proficiency (defined as global language skills across the areas of listening, reading, and writing as measured by the LAB) and

mathematics. A second report traced this group's progress in English proficiency, English reading, and mathematics from 1982 to 1983, and compared it to the progress of a sample of students citywide (Office of Educational Evaluation, 1986).

The next two studies moved beyond this basic information to examine two issues which continue to be of importance to policy-makers: how long it took LEP students to pass New York's entitlement cutpoint on the LAB, thus being considered prepared to function effectively in all-English classrooms, and the relationship between students' first-language proficiency and their subsequent success in acquiring English proficiency (Office of Research, Evaluation, and Assessment, 1986, 1990).

CURRENT FOCUS ON INSTRUCTIONAL PRACTICES

Having begun to address some of the basic questions about the progress of New York City's LEP students, we have now turned to an area not yet examined in detail: that of the services which they receive. Since 1983, New York City has maintained the Bilingual Education Student Information Survey (BESIS), an annual survey of students entitled to or participating in bilingual/E.S.L. programs. The BESIS surveys student demographic characteristics and the services they receive for each year in which they are entitled to, or participate in, a bilingual/E.S.L. program in a New York City public school. However, the need remains to obtain a fuller picture of the types of services offered to LEP students, as well as to move towards developing a model for examining their effectiveness.

Determining the effectiveness of an educational program or practice, however, first requires a determination of what the objective reality is; that is, an awareness of what instructional and other services are actually offered. In addition, determination of effectiveness should be based on conceptions, preferably research-founded, of what instructional approaches are most helpful in addressing the linguistic, cognitive, and affective needs of the targeted students. This study, then, takes the first steps towards assessment of program effectiveness by examining what services are now offered to LEP students, and comparing them to models of effective services drawn from the research literature.

There is an increasing body of research literature on the education of LEP students which we may draw upon to offer models for effective programs and services to LEP students. A review of this literature forms the substance of Chapter 3. At the same time, however, there is still little published documentation of services actually offered to large populations of LEP students across the country. With the exception of a multitude of individual funded program evaluations and the federally supported Significant Bilingual Instructional Features Study (Tikunoff, 1988), several other large federally funded studies have resulted in few detailed descriptions of services offered.[2] Because there has been so little documentation of

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[2]See, for example, the national study of services to LEP secondary students, conducted by Naomi Gray Associates, the National Longitudinal Evaluation of the Effectiveness of

the varieties of instructional and other services offered to LEP students nationally or in New York City, this study takes an initial step towards describing them in the New York City public schools, as a beginning step in the process of developing a comprehensive model of program effectiveness. This task is particularly challenging, since it has to incorporate a sensitivity to cultural and contextual differences among the groups of students served.

THE STUDY

This study examines the instructional and other services (e.g., tutoring and other academic support, counseling, and parental involvement) offered to LEP students in different New York City public schools. Conceived as a pilot, it utilizes a case study methodology to create rather detailed descriptions of services to LEP students in 21 schools, chosen to reflect diverse populations and contexts. Although not a random sample (see Chapter II for a discussion of sampling methodology), these schools provide access to the range and variety of services and contexts in New York City. This study is descriptive and generative; it does not attempt to make normative statements, although it does draw parallels when the observed services or practices agree (or disagree) with the research literature. In addition to pointing to effective practices as defined by the

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Services for Language-Minority Limited English-Proficient Students, conducted by Development Associates and completed by the Research Triangle Institute.

research, we have also asked teachers in New York City classrooms to describe the instructional practices which they felt were most effective in teaching English, native-language skills, and content-area subjects to LEP students.

RESEARCH QUESTIONS

This study addresses the following questions for the pilot sample:

- What kinds of bilingual/E.S.L. services do these schools offer LEP students?
- Which bilingual/E.S.L. instructional practices do these teachers use?
- Which practices do they report as particularly effective?
- How do these practices relate to what current research tells us are effective educational practices for use with LEP students?
- What non-instructional supports do these schools offer LEP students (e.g., counseling, tutoring)?
- Are teachers' staff development needs being met? Do they get support in meeting the needs of LEP students in their classes? From whom?

The authors are well aware of the intense debate, largely politically grounded, which surrounds the use of students' native language in United States classrooms. We do not believe that this study needs to reopen the discussion here, because of clear local legal mandates and the New York State Education Department's explicit support for the use of LEP students' native language in bilingual classrooms. We have thus chosen to devote this pilot study to describing and reporting "effective" instructional and other services -- either as reported in the

literature, or by New York City's teachers themselves, in the hopes that it will help educators offer the most effective services to students demonstrably in need of them. It will also lay the conceptual groundwork for future evaluations of services to LEP students, citywide.

II. METHODOLOGY

Our original study design involved selecting a sample of schools judged to be "effective" or "ineffective" for LEP students based on available measures of their academic performance. Our initial intent was to ask identical descriptive questions in both sets of schools, and to search for similarities and differences in instructional and other practices. This methodology, however, proved to be problematic. As a result, we shifted the focus of the design and analyses employed. These changes are discussed in the pages which follow.

DRAWING THE SCHOOL SAMPLE

To avoid selecting schools on the basis of subjective criteria, the study team decided to select schools whose LEP students were particularly successful -- or unsuccessful -- on a variety of outcome measures drawn from the New York City Public Schools' School Profiles datasets and other datasets that are centrally maintained.

Selecting a citywide sample of "effective" and "ineffective" schools involved three phases. In phase 1, schools were ranked according to outcome measures; in phase 2, schools were grouped according to building and student characteristics; in phase 3, "effective" and "ineffective" schools with similar building characteristics were matched.

Phase 1: Outcome Measures

Schools were grouped by level (elementary, middle, and high schools) and ranked on various performance indicators for the 1988-89 school year. The performance indicators for elementary and middle schools included:

1. LAB Gains: the percent of students who gained six or more Normal Curve Equivalents (N.C.E.s)[3] from Spring 1988 to 1989;

2. Mathematics: the percent of LEP students scoring at or above the 50th percentile on the New York City's customized version of the Metropolitan Achievement Test of mathematics (MAT);

3. The difference between LEP and non-LEP students' mathematics performance within each school.

For high school students, the same indicators were used, except that the Regents Competency Test (R.C.T.) was used for mathematics rather than the MAT. In addition, the following two indicators were assessed:

1. Credits Earned: the number of credits earned by LEP students towards graduation and the difference between credits earned by LEP and non-LEP students within each school.

2. Attendance: LEP students' attendance rates and the difference between LEP and non-LEP students within each school.

Unfortunately, school climate indicators (e.g. teacher and student satisfaction) and measures of first-language achievement were not available.

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[3] N.C.E.s are mathematical conversions of percentile scores which transform them into an equal-interval metric that permits evaluators to calculate gain scores and other statistics.

Each school was ranked within its respective level (elementary, middle, or high) for each of the indicators listed above. After ranking schools on these indicators separately, it was important to determine if their rankings were consistent across all indicators. Schools were compared across all the indicators to determine those which were consistently higher- or lower-performing.

When the list was completed, it became clear that schools frequently excelled in some areas and not others. More often than not, a school ranked high on one or two indicators and medium or low on other indicators. As a result, it was decided to identify a school as "effective" if its relative rankings on all the indicators were medium/high to high. An "ineffective" school was one that ranked low to low/medium.

Phase II: Control Variables -- School Characteristics

There is substantial documentation on the impact of intervening variables on student achievement. The most salient of these variables has been socio-economic status (SES). Other school characteristics that can affect achievement outcomes for LEP students are related to the size of the school, the types of students served, and local demographics. In order to make meaningful comparisons between schools, we matched schools on several characteristics:

(1) percentage of LEP students in a school;

(2) percentage of Hispanic students in a school (since Spanish is the most common native language of LEP students in New York City public schools, schools with

bilingual programs are most likely to serve Hispanic students); and

(3) percentage of students receiving free or reduced lunch. SES categories for elementary schools were:

- Low SES: more than 75% eligible for free lunch;
- Middle SES: 55 - 75% eligible for free lunch;
- High SES: less than 55% eligible for free lunch.[4]

SES categories for high schools were:

- Low SES: more than 40% eligible for free lunch;
- Middle SES: 20 - 30% eligible for free lunch;
- High SES: Less than 20% eligible for free lunch.[5]

Phase III: Matching Schools

At each level (elementary, middle, or high), using the ranking criteria outlined in phase one, four "effective" schools were matched with four "ineffective" schools that shared similar school characteristics. Due to the diversity of New York City schools, this proved to be the most difficult stage in the selection process and required several trials before the final sample could be selected. Three of the selected schools withdrew from the study, leaving a final sample of 21 schools.

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[4]These categories reflect the high proportions of New York City Public School students from low-income families. Although 55 percent free lunch eligible might be considered "low income" outside New York City, here it is the cutpoint for "high" SES status.

[5]The pattern for the high schools is different, not because high school students are better off financially, but because they are less likely to participate in the school lunch program, and therefore less likely to return the forms to their schools attesting that their family incomes are low.

THE FIELD STUDY

Four sets of structured interviews were developed based on information derived from prior bilingual program evaluations, as well as research literature. These interviews included versions for administrators, teachers of monolingual/E.S.L. self-contained classes, teachers of bilingual self-contained classes, and teachers of departmentalized or pull-out/pull-in classes (bilingual, E.S.L. only, and monolingual). Descriptions of these terms can be found in the Glossary of the Appendix to this report. Instructional personnel representing all three school levels were closely involved in the instrument development process. Given the time frame, no pilot could be completed.

Interviewers were trained and sent to the 21 schools which consented to participate in this study. They were directed to conduct structured interviews with the administrator most directly involved with providing instructional services to LEP students, as well as five teachers who taught LEP students in bilingual, E.S.L., or monolingual classes. Interviewers were directed to speak with a range of teachers rather than a random sample, in order to maximize the variety of services described. Overall, the interviewers spent between one and two days at each school.

DATA ANALYSIS

The two sources of data used in our analyses consisted of completed interviews with school staff and School Profile information. The interviews included close-ended and open-ended

questions, as well as a section for field notes and observations. OREA's School Profiles provided information on a number of school characteristics. They were used to prepare the overall description of our sample of schools and to compare them to school characteristics citywide.

The data analyses proceeded in several steps. Initially the questions across the four interview forms were grouped according to different themes (i.e., English Language Instruction). The open-ended questions were analyzed by generating categories from the interview data. We then tabulated the total number of responses for each question, and reported their range and frequencies. Related questions were grouped and discussed together; teachers' and administrators' comments were also compared within each school.

SUMMARY OF DESIGN ISSUES

Reliance on achievement outcomes alone as a measure of effectiveness resulted in an idiosyncratic sample of schools. Because schools were not consistently exemplary in all academic domains, designating them as effective or ineffective became a more subjective process than was desirable. In addition, upon close examination, exceptional performance was often due apparently to factors beyond the classroom -- in some cases, the result of an unusual group of students or other contextual factors rather than a particular intervention.

Although there are over 1,000 schools in the New York City Public School System, each school is unlike the others: the

educational needs of the students, and the kinds of communities which schools serve, vary widely across the city. In order to judge the efficacy of one school against another, it is necessary to hold these differences constant to whatever degree is possible; that is, to compare schools which are as similar as possible in terms of the students served and the community context. In practice, this proved exceedingly difficult to do: relatively few schools which were dramatically different in performance were alike in demographic and socioeconomic characteristics. However, by staying open to the complexity of factors that influence each LEP student's school experience, we were able to obtain richly detailed descriptive information from the field study. Of course, even with a lengthy program documentation questionnaire, there was much that the study team could not observe or otherwise detect in the sample schools because no classes were observed, nor were school climate variables examined, nor were students or their parents interviewed. Thus, a number of questions about the elements of an "effective" program or configuration of services remain for further investigation.

III. A REVIEW OF EFFECTIVE PRACTICES IN BILINGUAL/E.S.L. EDUCATION

Instruction for Limited English Proficient (LEP) students ranges from the "sink or swim" submersion to "Two-Way" programs where the entire student population is taught in two languages. As noted earlier, the New York Public Schools provide both bilingual and E.S.L. services. Therefore, this section will focus on a discussion of effective bilingual or E.S.L. instruction as advanced by leaders in this field. Particular attention has been given to describing instructional approaches that are commonly used in the New York City public schools. Of course, high quality bilingual/E.S.L. services have much in common with effective educational practices in general; this review incorporates both of these focuses.

A MODEL FOR EFFECTIVE BILINGUAL/E.S.L. PROGRAMS

Krashen & Biber (1988) identified bilingual programs in California where students not only outperformed their counterparts in other bilingual programs, but made consistent gains on national standardized achievement tests. The key to a successful program, Krashen (1990) concluded, was three basic characteristics:

1. Comprehensible input in English, in the form of high quality E.S.L. classes, sheltered subject matter teaching (comprehensible subject matter teaching in the second language), and a print-rich environment in English.

2. Subject matter teaching in the first language, without translation. This provides background knowledge that will make English input more comprehensible.

3. Literacy development in the first language, which will transfer to the second language (p. 5).

The Eastman Avenue School, located in a low-income Hispanic neighborhood in East Los Angeles was one example of a well-designed bilingual program (Crawford, 1989; Krashen & Biber, 1988). When Eastman changed its program to reflect Krashen's model, students' performance increased considerably. Crawford outlined the differences between the old and the new programs. Figure 1 on the following page provides a summary of these differences.

In addition, a recent study entitled "Longitudinal Study of Structed English Immersion Strategy, Early-Exit and Late-Exit Transitional Bilingual Education Programs for Language-Minority Children" (conducted by Aguirre International, 1991) found that late-exit transitional bilingual programs provided longer range benefits than either of two alternative programs; specifically, structured English-immersion and the early exit transitional bilingual programs.

FIGURE 1

Two Models of Bilingual Education

	Traditional Bilingual Program	Case Studies Model
Grouping	1/3 English speakers, 2/3 LEP; broad range of English skills; divided by grade level and reading level for all classes	grouped by levels of language proficiency, grade level and reading level for core subjects; mixed 1/3–2/3 for art, music, and physical education
Methodology	concurrent translation; grammar-based ESL	languages separated during all subjects (no translation); communication-based ESL
Content Areas	taught in native language and/or mainstream English	increasingly taught in sheltered English, geared to student proficiency
Curriculum	focus is on basics, especially English language arts	instruction is balanced between language and other subject areas
Exit	transition before students develop higher-level cognitive skills in the native language	transition after students are exposed to higher-level cognitive skills in the native language
Staffing	requires large number of bilingual teachers; more dependence on aides; little staff development or coordination among bilingual and English teachers	needs fewer bilingual teachers because of language grouping; less dependence on aides; much emphasis on training in teaching strategies; team teaching and cooperative planning
Accountability	responsibility for teaching the LEP child rests primarily on the bilingual staff; no involvement by principal	responsibility for educating the LEP child rests on all school staff; requires heavy administrative commitment

SOURCE: Adapted from "Eastman Curriculum Design Project." Los Angeles Unified School District, 1986.

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Bilingual programs are not isolated entities but operate within a larger structure -- the school. Carter and Chatfield (1986) have stressed the importance of the "mutually reinforcing interaction between bilingual programs and school context that produces high levels of student achievement" (p. 200). Applying past research on effective schools to evaluating bilingual services, they described the Calvin J. Lauderbach Community School as an effective school where both low-income minority English-speaking and LEP students were able to succeed. Like Eastman, Lauderbach was also located in California (Chula Vista) and served mostly low-income Hispanic students. Although Lauderbach had one of the lowest SES rankings in the district (22nd out of 28), their student's ranked in the district's top quartile on measures of achievement. Some of the key features of Lauderbach were:

- It was a community school -- the school grounds were open 24 hours a day for community use.
- There was positive leadership from administrators.
- The principal was allowed great latitude and flexibility, particularly with regard to funding.
- There was a shared acceptance of the goals and purposes of the school.
- School staff were actively involved in setting objectives and establishing strategies toward achieving general goals.
- The staff were multiethnic, enthusiastic, and well-prepared.
- Teachers had high expectations for their students to succeed -- the home environment was never blamed for school failure.

- There was high staff morale: job satisfaction, control, and efficacy.
- There was strong community support and active participation in school activities.
- The school had a safe and orderly environment.
- Students' outcomes were continually monitored.

These two examples of exceptional schools illustrate the significance of both the quality of bilingual/E.S.L. services and the context in which these services are provided. The sections that follow will review how characteristics such as instructional design, staffing, school climate, and support services contribute to LEP students' educational success.

EFFECTIVE INSTRUCTIONAL TECHNIQUES

Instructional objectives for teaching LEP students generally fall into two areas: (1) developing English-language proficiency; and (2) mastering the content areas of mathematics, science and social studies. While English-language proficiency is generally developed through E.S.L. instruction, content area instruction may be taught through E.S.L., sheltered-English or native language instruction.

E.S.L. Instruction

There are many instructional methodologies available for teaching E.S.L. Chamot & Stewner-Manzanares (1985) have identified 13 approaches which they grouped into four categories: (1) Audiolingual; (2) Non-traditional Approaches; (3) Communicative; and (4) Cognitive and Content-Based

Approaches. They stressed that when examining an approach for its educational benefits, it is important to consider the instructional objectives, the grade, and the level of the students being taught. The merits of the most commonly used approaches are discussed below. Complete descriptions of these approaches can be found in the Glossary (Appendix A).

Audiolingual Approach. This is one of the oldest and most commonly used methods of teaching a second language (Chamot & Stewner-Manzanares, 1985; Ovando & Collier, 1985). Basically, the teacher models sentences; and the students repeat them many times until the sentences become fixed in their memory.

Although it is a very popular approach, it is not considered to be particularly effective (Chamot & Stewner-Manzanares, 1985; Ovando & Collier, 1985; Ramirez & Stromquist; 1979). The strongest criticism against it is the absence of meaning and understanding in the learning process. Ramirez & Stromquist also found that students taught using the audiolingual approach performed less well on achievement tests than those who were taught using other methods (i.e. communicative).

Non-traditional Approaches. The Silent Way, Community Language Learning, and Suggestopedia are non-traditional approaches to teaching E.S.L. (Chamot & Stewner-Manzanares, 1985; Ovando & Collier, 1985). They are not widely used in the U.S. or with children. They have some interesting qualities, but there is limited evidence that they are effective.

Communicative Approaches. According to Cummins (1981), it takes much less time (2-3 years) to learn basic communication skills than it does to acquire higher-order thinking skills in a second language (5 to 7 years). Consistent with this view of language development, Chamot and Stewner-Manzanares (1985) differentiated approaches that focused on the development of interpersonal communication skills (communicative) from those that focused on cognitive-academic language development. They contended that communicative approaches were effective for developing initial, mainly oral, language competence, but were not particularly suited for fostering cognitive-academic language development. Common communicative approaches include:

> The Natural Approach: Students are exposed to language through the teacher's input. The teacher simplifies his or her speech to ease comprehension. There is a focus on reducing students' anxiety -- they are not required to speak until they are ready, and the teacher does not overtly correct student language usage.
>
> Total Physical Response: Teachers model language through accompanying physical movement; students listen, observe and respond physically and eventually verbally.
>
> Notional/Functional Approach: Language instruction is incorporated with situations and topics, embedding language in a social context.

Cognitive and Content-Based Approaches. Chamot and Stewner-Manzanares (1985) described cognitive and content-based approaches as those that focus on developing academic competencies. Cognitive approaches focus on teaching LEP students learning strategies in order to develop English-

language skills (Chamot & Stewner-Manzanares 1985). There is some evidence suggesting that cognitive approaches are more effective than the Audiolingual Approach (Ramirez & Stromquist, 1979).

Content-based approaches combine language learning with content area instruction in order to develop academic language skills and mastery of that content area (Chamot & Stewner-Manzanares, 1985). Findings from the evaluations of immersion programs in the United States and Canada suggest that content-based E.S.L. instruction (California State Department of Education, 1984) is an effective instructional approach.

Chamot and Stewner-Manzanares (1985) described the Language Experience Approach (L.E.A.) as having a content-based and cognitive component. For example, to teach reading the teacher develops classroom reading texts from the students' personal accounts and stories. This approach is also considered to be an effective classroom practice (Feeley, 1983; Rigg, 1981).

Although it was not specifically designed for teaching LEP students, the Whole Language Approach also has been found to be effective for E.S.L. instruction (Altwerger, Edelsky, & Flores, 1987; Hudleson, 1984). It is similar to the L.E.A., except that the Whole Language Approach emphasizes the development of oral and written communication skills. Some researchers have argued that providing learning experiences that enable LEP students to express themselves both orally and in written form is more beneficial than the L.E.A.'s initial reliance on oral language

input (Altwerger et al. 1987, Hudleson, 1984).

In their assessment of instructional practices, Chamot and Stewner-Manzanares (1985) identified a number of teachers who failed to align themselves with any specific approach. Instead they reportedly used an "eclectic approach" -- combining instructional strategies from different approaches. The researchers rated this strategy as effective in terms of its flexibility and ability to meet students' needs on a daily basis. However, they noted that the absence of a learning and teaching model presented a disadvantage in using multiple approaches.

Materials for E.S.L. Instruction. The materials that accompany teaching are also important. Pictures and visual aids have been described as effective tools for teaching LEP students. They can also be used with the L.E.A. to generate sentences (Feeley, 1983). The use of charts to record the weather and daily events is another example of using visual aids to promote second language learning in the primary grades (Feeley, 1983).

Krashen (1985) found that first and second graders who are read to regularly in school make superior progress in vocabulary and reading comprehension and has recommended the use of tapes to expose LEP students to the sounds and rhythm of English. Greater learning occurs when tapes are accompanied by the printed and graphic counterparts to the sounds (Feeley, 1983). However, when using tapes, it is advisable that teachers be

careful not to isolate students.

Chants, songs, and poems have also been developed for E.S.L. instruction and to incorporate grammar reinforcement, stress intonation, etc. (Feeley, 1983; McCracken & McCracken, 1979). Singing songs with English-speaking peers has the added advantage of making LEP students feel like part of the group.

Bilingual Instruction

As noted earlier, New York City's mandates for bilingual education for LEP students are based on the Aspira Consent Decree (1974) and the Office of Civil Rights Agreement/Lau Plan (1977). To ensure educational equity, students who cannot effectively learn in English must be instructed in their native language or E.S.L. Many educators and researchers have supported the use of the native language to teach LEP students (Cummins, 1986; Hakuta, 1986; Krashen, 1985, 1990; Snow, 1990). Various studies have documented higher levels of cognitive ability (i.e., metalinguistic awareness) among children taught bilingually (Cummins 1981; Hakuta, 1990). Others have found that LEP students who had initially developed strong skills in their native language, later performed well on measures of achievement in English (Crawford, 1989; Krashen & Biber, 1988; Snow, 1990; Torres & Fischer-Wylie, 1990; Troike, 1978). Bilingualism has also been considered an asset for later life (Glenn, 1990).

Bilingual instruction has been provided in a number of ways, with some models considered more effective than others

(Crawford, 1989; Krashen & Biber, 1988). Ovando and Collier (1985) described three models of bilingual education:

> Transitional: Students receive native language instruction for all subject areas for a limited amount of time along with E.S.L.
>
> Maintenance: Students receive content area instruction in both languages throughout the primary grades.
>
> Two-Way Enrichment: LEP and English-speaking students are placed in an integrated bilingual classroom and learn each other's language.

Of these models, Ovando and Collier (1985) suggested that the transitional model was the least effective. Firstly, these are typically two-year programs which do not allow LEP students enough time to develop cognitive-academic language proficiency (Cummins, 1981). Secondly, the program is often perceived as a "lower track".

Ovando and Collier (1985) described maintenance and two-way bilingual models as better alternatives. These programs extend over longer periods of time and tend to be viewed as enrichment rather than remedial in nature (particularly two-way models). The extended time and higher status of these programs will promote greater academic achievement and have a more positive impact on LEP students' self-esteem.

Krashen and Biber (1988) have supported a maintenance model of bilingual education. This model is designed to permit knowledge acquired in the first language to transfer to the development of knowledge of and in the second language. Instruction in English is increased gradually through E.S.L. and sheltered-English content area instruction:

1. Beginning Level: all core subjects are taught using the students' first language. Students also receive high quality E.S.L. Subjects such as art, music, and physical education (P.E.) are taught in English. During this stage, subjects taught in the native language will make classes taught in English more comprehensible.

2. Intermediate Level: subjects such as social studies and language arts are taught using the first language. Students continue to receive E.S.L. Math and science are taught using sheltered English (they require a lesser degree of English proficiency). Subjects such as art, music and P.E. are taught in English.

3. Advanced Level: only language arts is taught in the first language. Students continue to receive E.S.L. Social studies is now using sheltered English; while all other subjects are mainstreamed.

4. Final Stage: students are mainstreamed. All subjects are now being taught in English. The first language is used for instructional enrichment.

Use of the Native Language. Balancing the use of the native language and English is an important consideration when teaching in a bilingual classroom setting (Ovando & Collier, 1985). The ratio of native language usage to English will range from classes that are taught exclusively in the native language to those where English is predominantly used. The balance of language is influenced by several factors including the students' language proficiency, the subject being taught, the teachers' language proficiency, and the instructional approach used.

Ovando and Collier (1985) described common approaches used for bilingual instruction in the content areas:

Concurrent Approach. This is the most common method of teaching content areas in bilingual classrooms in the U.S. Both languages are used interchangeably, or two teachers

may team teach one lesson, each modelling a different language.

Preview-review Approach. This is mainly used in a team teaching situation (ideally in a two-way model). One teacher gives an introduction to the lesson in one language; the other follows with a presentation in the second language. The lesson is reviewed using both languages interchangeably.

Alternative Approach. Also known as the Language Separation Approach (Jacobson, 1990), it involves the complete separation of the two languages of instruction. Language usage may be alternated by day, by half-day, or by subject area.

Code-Switching. This involves a spontaneous switch from one language to the other in the context of instruction, rather than the direct translation of lessons.

Of these approaches the concurrent approach has received the most criticism (Faltis, 1990; Legarreta-Mercaida, 1981; Ovando & Collier, 1985). Research suggests that many teachers who said they used a fifty-fifty instructional balance of both languages, taught predominantly in English. Also, the repetition of instruction was described as an inefficient use of time. It allowed students to filter out the language they did not understand and wait for the explanation in their own language. This last problem also was associated with the preview-review method (Ovando & Collier, 1985).

Addressing these problems, Jacobson (1981) proposed the New Concurrent Approach (NCA), which is based on the controlled use of two languages. The key changes in his approach were: (1) no code switching while children were still in the developmental stages of language acquisition; (2) that teachers monitor their usage of two languages to achieve a fifty-fifty ratio; (3) that

teachers avoid direct translation and repetition; and (4) code-switching must relate to a specific objective.

Ovando and Collier (1985) described code-switching as a method which reflected the natural speech patterns of bilingual individuals. However, to be effective, code-switching must be used consciously and an overusage of English avoided (Faltis, 1990; Jacobson, 1981; Ovando & Collier, 1985). Situations that call for a switch from the second language to the first language might be when teachers want to capture the attention, praise or reprimand, a student. However, to avoid negative associations with one language, it is important to use both languages for discipline as well as other purposes.

Ovando & Collier (1985) found that the language separation approach provided LEP students with greater amounts of native language instruction. On the basis of Krashen's (1990) research the most effective strategy would be to separate subjects by language, with those requiring more language skills (i.e. social studies) taught in the native languages.

CLASSROOM ORGANIZATION

The instructional approach selected by the teacher will influence the organization of a classroom (Chamot & Stewner-Manzanares, 1985). For example, communicative approaches are best suited for small-group activities, as are cognitive and content-based approaches. However, some teachers tend to rely on audiolingual methods for teaching an entire class even though researchers do not consider it to be as effective. Organization

is also influenced by the teaching staff in a classroom -- team teaching, a teacher and an aide or a teacher alone (Ovando & Collier, 1985).

Student characteristics may also influence how a class is organized. Classes with LEP students having different language backgrounds, or varying levels of language and cognitive abilities may be organized differently than classes that are less diverse. Grouping by language ability has been described as a common and effective organizational strategy (Wong Fillmore, 1982).

Different types of classroom organization have been used to integrate the cultural backgrounds of LEP students into the classroom setting (Au & Jordan, 1981; Leith & Sientz, 1984). Au & Jordan described how the design of the Hawaiian Kamehameha Early Education Program (KEEP) was based upon the children's learning experiences in the home. Children were assigned rotating tasks and carried them out under the direction of their peers, while teachers assumed a facilitative role. Reading instruction was modelled on a Hawaiian-Polynesian style of storytelling. Students assisted each other and talking in pairs and triplets was encouraged. Early learning outcomes were positive, and students were introduced into more typical classrooms in subsequent grades.

Small Group and Individualized Instruction

Researchers have described various effective organizational strategies for teaching LEP students from heterogeneous language

backgrounds and with varying degrees of English language proficiency (Duran, 1990; Jacob & Mattson, 1990; McGroarty, 1989; Slavin, 1990). To no one's surprise, these appraoches reflect good educational teaching practices in general. These innovative strategies are generally geared for small group and individualized instruction. To be effectively implemented, however, they require systematic planning and staff development.

Direct Instruction. Direct Instruction (D.I.) is a strategy for small group instruction which emphasizes oral communication, students' responses, and the use of positive reinforcement. A unique characteristic of D.I. is its focus on teacher support, particularly through the use of scripted and field tested lessons for teachers which acts as a type of "instructional quality control" (Arreaga-Mayer & Greenwood, 1986). Findings of a nationwide evaluation of D.I. demonstrated that "at risk" children who initially scored low on measures of achievement, scored above grade level in reading and mathematics by third grade.

Cooperative Learning Instruction. Cooperative Learning (C.L.) is also directed toward small groups. It encompasses a variety of instructional strategies (see Glossary) that can be applied to content area instruction in both E.S.L. and bilingual settings. Classwide Peer Tutoring, for example, creates a systematic pairing of students into teams of two to six members whereby students who are more proficient in English serve as tutors and resources to the other LEP students (Arreaga-Mayer &

Greenwood, 1986). This approach has also been found to reinforce a tutor's own learning and improve self-esteem.

Research studies have shown that C.L. positively affects the academic achievement of LEP students (Jacob & Mattson, 1990, McGroarty, 1989). Others have described social, linguistic and curricular benefits associated with this strategy (Duran, 1990; Jacob & Mattson, 1990; McGroarty, 1989; Slavin, 1990). This approach supports language development by encouraging the use of the first language as a means to acquire the second language and by creating ample opportunities for frequent interaction with teachers and with other students.

Teachers reported that working in cooperative groups improved LEP students' self-esteem and their attitudes toward school, and decreased absenteeism (Jacob & Mattson, 1990; McGroarty, 1989). C.L. also has been credited with promoting the acceptance of classmates that are culturally different from each other. However, teacher training and support is required to integrate C.L. effectively into a bilingual program (Jacob & Mattson, 1990; McGroarty, 1989; Slavin, 1990).

Individualized Instruction. Individualized instructional strategies have also been found to be effective for LEP students. These include the Personalized System of Instruction (P.S.I.) and Precision Teaching. P.S.I., designed primarily for college-level students, uses self-pacing techniques and requires unit mastery in order to proceed to new material. In order not to isolate the student, it is important to balance

individualized instruction with sufficient classroom interaction. It emphasizes the written word in teacher-student communication. Precision Teaching is similar to P.S.I., in that it is organized according to the instructional needs of the individual student. However, it is different in its use of ongoing assessment as a means of modifying instruction (Arreaga-Mayer & Greenwood, 1986).

EFFECTIVE TEACHING BEHAVIORS

The Significant Bilingual Instructional Feature Study identified common characteristics of effective bilingual classrooms (Tikunoff, 1983):

- Use of active teaching behaviors;
- Use of references from the LEP students home culture;
- Use of two languages to mediate instruction; and
- Integration of English language development with regular in-class instruction.

Proficiency in the students' native language has been described as one of the most important skills a bilingual teacher can possess (Ada, 1986; Duran, 1990; Faltis & Merino, in press; Tharp & Gallimore, 1988; Tikunoff & Vasquez-Faria, 1982; Trueba, 1989). Teachers must be proficient enough to be able to manipulate instruction in both languages and to integrate students' work at different levels of linguistic and conceptual complexity. Tikunoff and Vasquez-Faria found that bilingual teachers' language skills allowed them to integrate students who arrived in their class throughout the year. Others (Duran,

Tharp and Gallimore) found that bilingual teachers were able to provide students with academic assistance.

Similarly, research has suggested (Ada, 1986; Trueba, 1989) that teachers who lack a mastery of the students' native language have more difficulties in classroom management. This also limits their ability to clearly explain subject matter to LEP students and affects the quality of the relationship between the teacher and the students.

Teachers who provided opportunities for interaction, contextualized information, and provided clear instructional goals were found to contribute to LEP students' gains in English acquisition (Wong Fillmore, Ammon, Mclaughlin & Ammon, 1985). Other research has supported the use of verbal interaction to promote second language acquisition (Greenwood, Delguadri & Hall, 1984; Krashen, 1981; Swain, 1983). However, interaction opportunities or contact with peers appeared to be more beneficial for Hispanic than Chinese LEP students (Wong Fillmore et al., 1985).

The amount of time that students are actively engaged in learning with a high degree of accuracy (Academic Learning Time) has been found to be related to student success (Wiley & Harnischferger, 1974). Ortiz (1980) criticized programs requiring LEP students to go to special instructional centers and poorly managed classrooms for decreasing the academic learning time for LEP students.

Teacher Preparation and Staff Development

While high-quality monolingual and bilingual classrooms have much in common (Tikunoff, 1983), bilingual teachers require a more specialized set of instructional skills than do mainstream teachers (Faltis & Merino, in press; Ulibarri, 1970). To develop the range of skills required to teach LEP students, teachers need adequate preparation and training. Although teacher preparation for bilingual education would appear to benefit from a bilingual focus, many of these teachers have not been educated in bilingual education programs (Ada, 1986). Various educators and researchers have suggested a number of areas that need to be addressed. These included training and experience in assessing students' language and cognitive proficiencies (Mace-Matluck, 1985; Santos, 1977) and training and practice in dual-language and E.S.L. instruction (Santos, 1977).

Teachers of LEP students, who are often faced with a shortage of instructional materials, could benefit from training in the uses of different instructional materials and how to adapt the regular curriculum to the needs of LEP students (Armor, Conry-Osequero, Cox, King & Zellman, 1976). Teachers also need training in order to make use of different types of classroom organizations (i.e. team teaching and small group instruction) (Au & Jordan, 1981; Santos, 1977). Santos also suggested that prospective teachers receive field experiences in bilingual settings and the communities where they plan to teach.

Some researchers have stressed the importance of a collaboration between institutions of higher learning and the public schools in other to facilitate and improve teacher training (Mace-Matluck, 1985; Mercado, 1990; Santos, 1977, Valadez & Gregoire, 1990).

A Model of Staff Development. Valadez and Gregoire (1990) described the staff development component of a school district's Master Plan for Bilingual Education. Their goal was to provide school staff with inservice training that would help them meet the needs of LEP students as well as provide them with opportunities for career development and professional growth. Their plan encompasses teacher preparation, recruitment, inservice training and professional development:

- The district established a program that recruited and trained students from local universities to become bilingual teachers;
- All bilingual and monolingual teachers who were responsible for teaching E.S.L. were given preservice training at the beginning of the year;
- Classroom demonstration lessons were conducted by the district's team of resource teachers;
- The district collaborated with a local university in developing a master's program for teachers. Participating teachers completed projects that benefitted the district (e.g. some developed bilingual lesson plans and textbooks);
- To further address the need for bilingual teachers, the district selected teachers to attend summer classes at a high quality training center in Mexico City.

SCHOOL CLIMATE

The instructional programs in a school are inextricably embedded within the total school environment. The provision of quality services to LEP students will be influenced by a number of factors not directly related to instruction, but rather on how these services operate within the school context (Carter & Chatfield, 1986).

Program Leadership and Integration within the School

One of the indicators of a successful bilingual/E.S.L. program is that it is fully integrated in the school rather than a supplement to it (Carter & Chatfield, 1986; Glenn, 1990). Integrating the bilingual program within the school requires strong positive leadership (Armor et al., 1976; Carter & Chatfield, 1986; Weber, 1971) and clearly-stated goals and objectives that are shared by all school staff (Carter & Maestas, 1982; Padilla, 1982; Trueba, 1989).

Bilingual teachers, who often feel isolated from the rest of the school, need support from colleagues, technical advisors and administrators. A school structure that provides the teachers of LEP students opportunities to interact with other school staff (bilingual and English monolingual) will boost teacher morale and allow them to develop knowledge, share information about students, and instructional materials (Ada, 1986; Armor et al., 1976; Trueba 1989).

Staff Morale. The morale of the instructional staff has been known to influence the success of a bilingual program.

Conditions that build staff morale have included a strong internal support system, a focus on consensus building, job satisfaction, a sense that the education system works, a sense of ownership, and clearly defined roles and responsibilities (Carter & Chatfield, 1986). Teacher autonomy, participation in decision-making and a sense of efficacy have also been considered as a necessary component for success (Armor et al., 1976; Carter & Chatfield, 1986; Weber, 1971).

Teacher Expectations

Teachers' expectations have often been associated with educational success for students (Au & Jordan, 1981; Bandura, 1977; Brookover & Lezotte, 1977; Tikunoff, 1983; Weber, 1971). Au and Jordan found that LEP students are more responsive when their teachers have expectations that match the way the students express themselves. Teachers who demand a high level of academic performance from students as well as those who do not accept a "cultural deprivation" analysis of school failure (Carter & Chatfield, 1986) also have been considered to promote greater learning and performance (Bandura, 1977; Brookover & Lezotte, 1977; Tikunoff, 1983; Weber, 1971).

Cultural Sensitivity

The importance of cultural sensitivity has been well documented in considering a bilingual program as effective (Cummins, 1986; Garcia, 1987; Krashen, 1985, 1990; Snow, 1990; Tikunoff, 1983; Wong, 1979). Sensitivity to the language and culture of minority students has been shown to affect self-

concept and self-esteem which in turn leads to higher academic achievement (Cummins, 1986; Freire, 1973). Some studies have suggested that LEP students do better in schools where the teachers and students share a common culture and language (Au & Jordan, 1981; Snow, 1990; Wong, 1979); or when the ethnicity of administrators and support staff reflect the ethnic makeup of the students (Ada, 1986).

Relationships among LEP students and English-speaking peers are equally as important as between teacher and student (Glenn, 1990). Trueba (1989) pointed out that schools need to take responsibility for sensitizing the English-speaking students to the needs of LEP students. This may be accomplished through the structure of services, such as instituting a two-way bilingual model. Organizing academic and nonacademic activities involving all students together can also be used to increase understanding amongst cultural groups (Glenn, 1990).

Parent/Community Involvement

The effects of home environment on academic achievement for LEP students has been well documented. Some studies have suggested that the expectations of parents regarding their children's school performance and the emphasis placed on academic success will influence the achievement of LEP students (Gardner, 1979; Ogbu & Matute-Bianchi, 1986, Snow, 1990). Parents' attitudes toward the English-speaking community can influence their children's attitude toward learning English. If children observe negative attitudes from their parents, they

might deduce that learning English is not that important (see Gardner, 1979).

The degree to which the families of LEP students are integrated into the majority culture will influence both their attitudes toward English and their children's chances for success (Glenn, 1990). Also, all language groups are not perceived the same way in American society. LEP students who speak languages having a low status (i.e. Spanish) face greater adjustment problems than those students whose home language is not perceived negatively (Fisher & Guttrie, 1988; Ogbu & Matute-Bianchi, 1986). Ogbu and Matute-Bianchi stated that LEP students from "caste-like minorities" (i.e. Puerto Ricans) may not perceive schooling to be valuable due to the limited opportunites they see available for them as adults.

Parent involvement is an important factor in student achievement (Armor et al., 1976; Brookover & Lezotte, 1977; Comer, 1988; Snow, 1990). Snow found that students made greater gains in reading when parents and teachers had more contact, irrespective of who initiated the contact. Also, students coming from homes where the parents developed their children's literacy skills in the first language (e.g. by reading stories to them) were better able to learn English than students who have not had these experiences (Krashen & Biber, 1988).

Related to literacy in the home, is the degree to which LEP students and their families are exposed to English in their neighborhoods. The availability of print media written both in

English and the students' first language could promote English language development (Krashen, 1985, 1990).

Community attitudes and expectations are equally important. Successful bilingual programs and schools have been found in communities that are actively involved in the planning and implementation of the programs (Carter & Chatfield, 1986; Comer, 1988). Successful strategies to promote active community and parent involvement have included Home-School units, parent volunteers and School-Community Committees (Reyes, 1978).

SUPPORT SERVICES FOR LEP STUDENTS

LEP students represent a diverse group of students who have different needs. LEP students who are new arrivals to the United States must adjust to a new culture and language as well as a new school. Their ability to adjust and succeed in school will be influenced by personal experiences in their home countries. Adjusting to a new culture is also conditioned by experiences in the United States -- the real and perceived opportunities and/or barriers to success (Ogbu & Matute-Bianchi, 1986). For example, some LEP students have been exposed to large-scale violence, profound social dislocation, or other deprivation. LEP students arrive in the United States with varying degrees of literacy in their native language. To ensure the educational success of LEP students, schools need to provide support services that meet their academic and adjustment needs.

Ovando and Collier (1985) suggested for low literacy students an individualized program of literacy instruction in

both the native language and English. Teachers' aides, student teachers and college volunteers could provide this service under the supervision of a teacher.

In one school district, guidance and counselling were seen as important components in developing their Master Plan for Bilingual Education (Valadez & Gregoire, 1990). The district proposed to provide a pupil personnel staff with linguistic competence, cultural awareness and positive attitude towards all students and families. They also planned to provide counselling and guidance programs that promoted self concept and ensured optimal learning, achievement and motivation.

IV. THE SURVEY SAMPLE

This chapter provides a descriptive overview of the 21 schools that comprised our survey sample. Specifically it covers:

- Sample School Characteristics
- Overview of Bilingual/E.S.L. Services
- Characteristics of the Teacher Sample

SAMPLE SCHOOL CHARACTERISTICS

As noted in Chapter III, bilingual/E.S.L. services exist in the context of a larger school environment (Carter & Chatfield, 1986). Unlike many of the case studies of bilingual education programs which were generally conducted in predominately low-income Hispanic schools (Carter & Chatfield, 1986; Krashen & Biber, 1988), the New York City schools that were part of this study were highly diverse and heterogenous in many respects -- each one a somewhat unique setting for education. Observations by field interviewers included numerous "vignettes" describing each school. For example:

> "This elementary school is a serious learning environment with a clear philosophy and approach which teachers understand and implement purposefully and enthusiastically. Students' bilingualism is viewed as part of the "whole" child, not a category within which children should be viewed."

> "The teaching staff at this middle school appeared upbeat, singularly dedicated to their students and professional responsibilities. This school is extremely overcrowded, housing a primary school as well in one six-story building -- a building in great disrepair ... the school is littered and noisy."

"There is a positive morale about the program and the high school. For ninth graders, the bilingual program is a separate entity, but seems to respond to the needs of the students. In the tenth to twelve grades, LEP students are incorporated into regular school programs, mostly due to the specialized vocational courses offered at higher grade levels."

When selecting the schools for this study we attempted to include schools representing a range of demographic characteristics. The following pages describe these characteristics using school-level data from the School Profiles for fall 1989 and fall 1990 and the BESIS for 1989-90.[7]

Building Variables

Grade Organization. Our sample consisted of six elementary, eight middle, and seven high schools dispersed throughout the five boroughs of New York City. The schools had the following grade organizations:

Elementary	Middle Schools	High Schools
PK-6 (3)	6-8 (4)	9-12 (7)
PK-2 (1)	6-9 (1)	
PK-5 (1)	7-9 (3)	
K-2 (1)		

Size. Student populations ranged from a K-2 elementary school of 467 students to a high school of 3,110 students. All the elementary schools, five middle schools and two high schools

[7] The 1989 School Profile data was used to develop an overview of sample school building characteristics. Due to the high mobility patterns of LEP students in many of the New York City public schools, however, 1990 data more accurately reflected the composition of these students when the study was carried out in May 1990.

(13 out of 21) had less than 1,000 students. The seven remaining schools (three middle schools and four high schools) had between 1,000 and 3,000 students.

School Utilization Rate. A school's utilization rate is a measure of its capacity to accomodate its student population and instructional programs. A fully utilized building has full classrooms every period of the school day and thus has little margin of flexibility. Although the utilization rate ranged from 45 to 133 percent among the sample schools, most schools (11) were overcrowded (>101 percent utilization). Four appeared to be less crowded (<75% utilization), and five fell in the range of 76-100 percent utilization. Data were not available for one school.

Stability Rate. Among the selected schools, the stability rate (proportion of students continuously registered for at least three years in the same school[8]) varied from 19 to 75 percent. Nearly half of the sample schools (10) had stability rates below the citywide averages for the elementary, middle, and high schools, (63, 52, and 65 percent, respectively), indicating highly mobile student populations. Data were not available for three of the sample schools.

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[8] The data refer to students on register in June 1989 who were in schoolas of October 1, 1986.

Student Characteristics

Racial and Ethnic Composition. Our selected schools had varying proportions of black[9], Hispanic, Asian and white students. Most (18) had large numbers of minority students. In half of these schools, blacks were the largest group of students; the other half had greater numbers of Hispanics. The three remaining schools were more racially and ethnically mixed.

LEP Students. LEP students representing a variety of language backgrounds were found in the selected schools:

- all of the 21 schools had Spanish-speaking LEP students,
- ten schools had Chinese-speaking LEP students, and
- nine schools had Haitian Creole-speaking LEP students.

Other language groups represented in the sample of schools included speakers of Korean, Vietnamese, French, Arabic, and Italian.

Our sample schools also varied in terms of the proportion of LEP students in each school, ranging from less than two to 34 percent.

- nine schools had low concentrations of LEP students (less than 11 percent of the student population);
- nine schools had medium concentrations of LEP students (11-20 percent);
- three schools had high concentrations of LEP students (greater than 20 percent).

Students Eligible for Free Lunch. Students are eligible for free or reduced-price meals if their family income falls

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[9] The category "black" included African-American as well as students of various ethnic backgrounds who did not fit into the federal ethnic categories.

below federal guidelines based on family size. These data indicated high poverty rates among the students in the selected schools. Sixty-four percent of elementary students and 54 percent of middle school students citywide were eligible for free lunch. In comparison, eligibility rates in the selected elementary and eight middle schools ranged from 66 to 88 percent and from 60 to 90 percent, respectively.

The proportions of free-lunch eligible students were relatively lower but showed greater variation in the high school sample (eight to 75 percent). In about half (3) of the high schools, the number of free-lunch eligible students exceeded the citywide average of 27 percent. High school students often neglect to deliver the needed application forms to their parents/guardians, resulting in fewer students receiving free lunch. Therefore, these data are likely to underestimate the actual poverty level among high school students.

Attendance. The selected schools had average daily attendance which varied from 66 to 92 percent. Most of them (14) had lower attendance rates compared to the citywide averages of 89 percent for the elementary, 85 percent for the middle, and 84 percent for the high schools.

Academic Achievement

The academic achievement of elementary and middle school students is assessed through the Degrees of Reading Power test (D.R.P.) and the Metropolitan Achievement Test in mathematics (MAT). LEP students who are in the school system for two years

or less are exempt from taking the DRP and the MAT mathematics test. Test summaries indicated that in our selected schools most students (non-LEP as well as LEP) were performing below grade level in both reading and math, although the elementary schools had higher achievement levels than the middle or high schools. See Appendix B for a detailed discussion of both LEP and non-LEP students' achievement in reading and mathematics for the 21 sample schools.

High School Dropouts. The dropout rate[10] of the sample high schools ranged from three to 16 percent. Most of the schools (5) had a dropout rate that was higher than the citywide average of seven percent. Dropout rates were not reported for elementary and middle schools.

High School Students Graduating with Regents Diplomas. Relatively few New York City students graduate high school with a State Regents Diploma (23 percent). This was also true of the students in our sample schools. In four of the selected high schools, both LEP and non-LEP students performed well below the citywide average with less than seven percent in each school graduating with a Regents diploma. However, one school outperformed the citywide standard with 50 percent of its graduating class obtaining a Regents diploma. Data for two of the high schools were not reported.

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[10] Dropout rates are the "one-year" rates which include general and special education students but exclude students found to have continued their education after they were discharged as dropouts.

OVERVIEW OF BILINGUAL/E.S.L. SERVICES

To obtain a fuller picture of how these schools organized bilingual and/or E.S.L. services for their LEP student populations, our survey asked the bilingual/E.S.L. services administrator (usually an Assistant Principal) in each school to provide information about the range of instructional services available to LEP students. We also examined School Profile data to determine the proportions of LEP students receiving bilingual services, free-standing E.S.L. services, or no bilingual/E.S.L. services.

Every school provided at least one of the following configurations of services to varying proportions of their LEP students. (Classroom settings for these services are described later in this chapter.) Specifically:

(1) Full bilingual services:

- E.S.L. instruction;
- Native language communication arts (N.L.C.A.);
- Bilingual content areas (math, science, social studies)
  - for LEP students in the 0-20th LAB percentile: instruction given primarily in the student's native language;
  - for LEP students in the 21-40th LAB percentile: instruction given in students' native language "as needed".

(2) Partial bilingual services:

- E.S.L. instruction;
- Either N.L.C.A. or bilingual content area instruction.

(3) Free-standing E.S.L. services (or E.S.L.-only):

- E.S.L. instruction one period per day on a "pull-out" or "pull-in" basis;

- Content area instruction in English, either in a "regular" or E.S.L. class.

The Glossary in Appendix A provides more detailed descriptions of these terms.

Each school differed to some degree in terms of the number of LEP students in the school population as well as the proportion of LEP students who received bilingual/E.S.L. services. While each school offered, at minimum, E.S.L. services to some of its LEP students, the availability of these services sometimes appeared to be limited; consequently, a varying portion of LEP students in each school received no bilingual or E.S.L. instructional services.

Figures 2, 3, and 4 on the following pages summarize the proportions of LEP students in each school receiving the above configurations of bilingual/E.S.L. services. An analysis of these figures reveals that:

- Fifteen of the schools provided both full/partial bilingual and free-standing E.S.L. services;
  - Of these schools, four served greater proportions of LEP students with free-standing E.S.L. services than with bilingual services;
  - Eleven of the 15 served greater proportions of LEP students with bilingual services than with free-standing E.S.L. services;
- One of the 21 sample schools offered only full/partial bilingual programs;
- Five of the 21 schools offered only E.S.L. and no bilingual services.

Distribution of Bilingual/E.S.L Services
Sample Elementary Schools

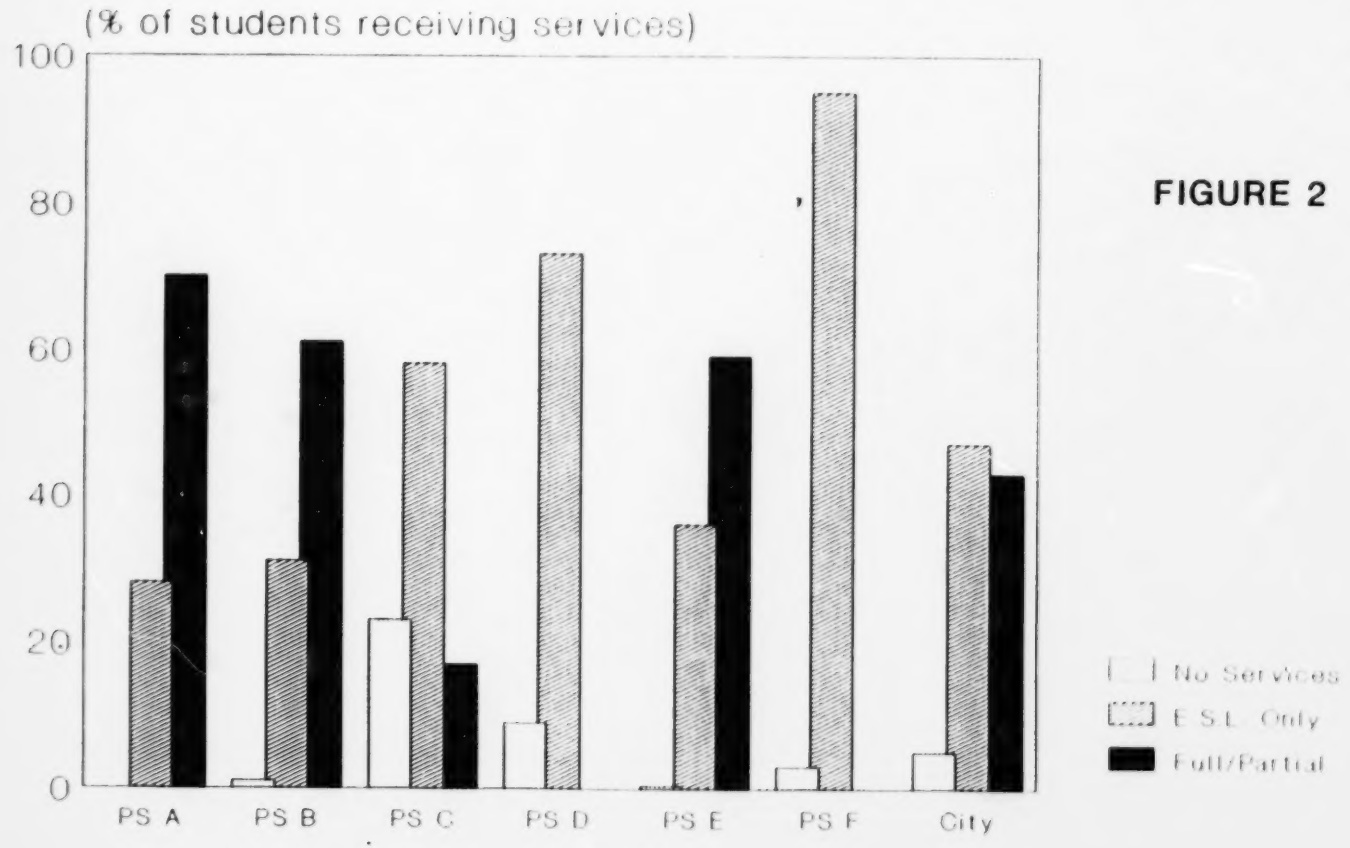

FIGURE 2

Obtained from 1989-90 BESIS

Distribution of Bilingual/E.S.L Services

Sample Middle Schools

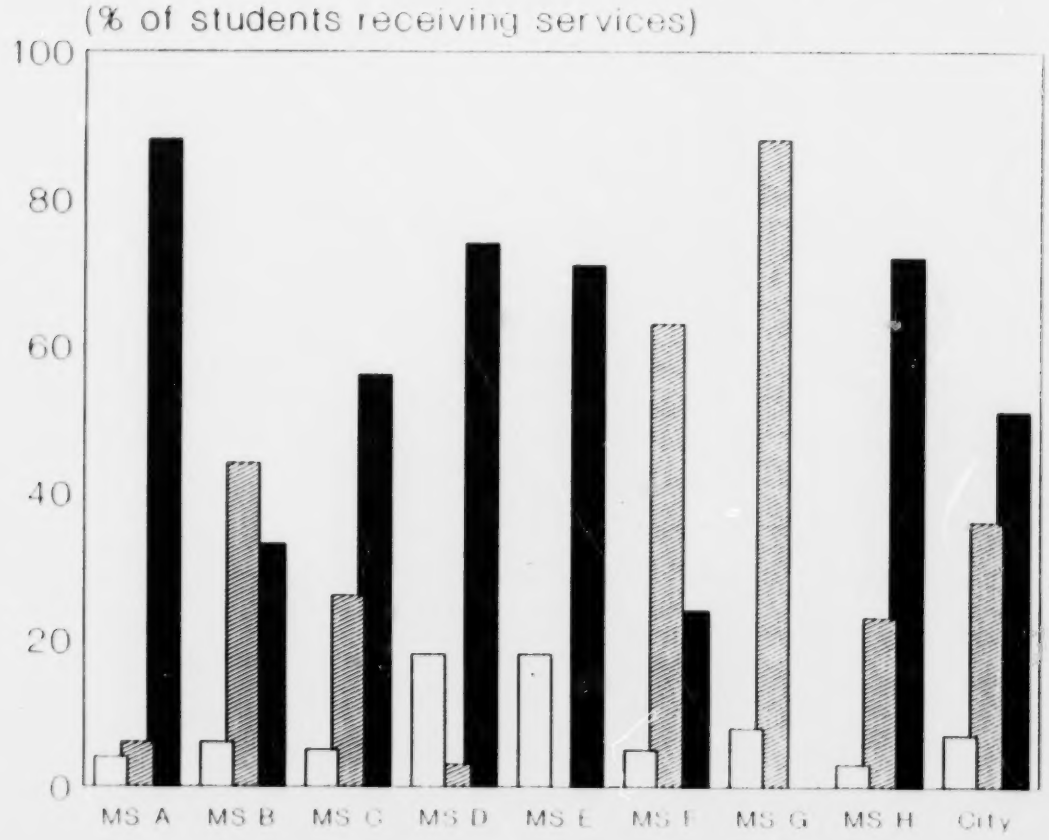

FIGURE 3

Obtained from 1989-90 BESIS

Distribution of Bilingual/E.S.L Services
Sample High Schools

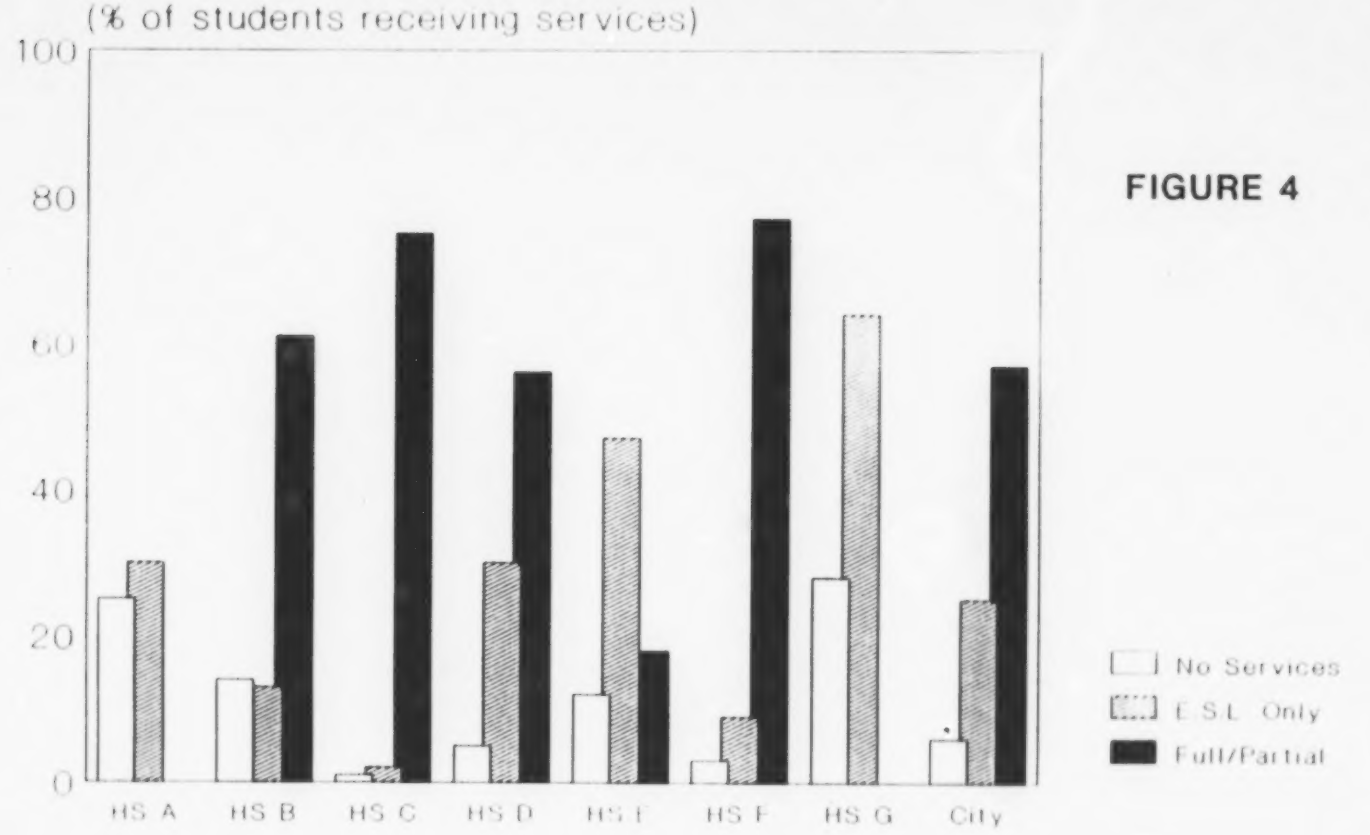

FIGURE 4

Obtained from 1989-90 BESIS

Proportion of LEP Students Receiving Bilingual Services. Most of the sample schools (16 out of 21) offered full or partial bilingual services. However, the proportion of students in each school receiving these services ranged from 17 percent to 87 percent. Four of these 16 schools served half or less of their LEP populations with these services. Twelve of the sample schools offered full/partial bilingual services to more than 50 percent of the LEP students.

New York State and City education regulations (Commissioner's Regulations, Part 154, 1980; Aspira Consent Decree, 1974) provide that a school must offer bilingual services if there are:

- 25 or more elementary or middle school LEP students on two consecutive grade levels (these students would form a "bridge" class); however, to increase provision of student services, funding is allocated based on only 15 students per grade level (according to the Aspira and Lau Consent decrees);
- a minimum of 20 high school students on the same grade level (according to New York State mandate);
- if there are less than the minimum number of LEP students specified by grade level, then the school must provide E.S.L. services, while bilingual services are optional.

Among the schools surveyed, bilingual services were primarily available to Spanish-speaking students, probably because of their greater numbers. Our survey data also revealed:

- Fourteen of the 17 schools in the sample with the requisite number of Spanish-speaking LEP students offered bilingual services to these students;
- The one high school with a sizable Chinese-speaking

LEP student population offered bilingual Chinese services;

- Of the four schools with a sizable Haitian Creole-speaking LEP student population, three offered bilingual services to these students;
- Three of the seven high schools offered full/partial services to more than one language group.

Proportion of LEP Students Receiving Free-standing E.S.L. Services. Twenty out of 21 schools provided free-standing E.S.L. services to some LEP students. LEP students at those schools receiving such services ranged from two percent to 95 percent.

Seven of the 20 schools offering free-standing E.S.L. services reached 25 percent or less of their LEP students with these services. In five schools, more than 50 percent of the LEP students received free-standing E.S.L. In two of these schools, more than 75 percent of its LEP students received free-standing E.S.L. services.

LEP Students Receiving No Bilingual or E.S.L. Services. Twenty of the 21 schools had LEP students who reportedly received no bilingual or E.S.L. services. The proportions of these students varied from less than one percent to 28 percent.[11]

Citywide, out of a total of 110,245 LEP students in the New

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[11] The New York City Public Schools' Office of Monitoring and School Improvement monitors and follows up, as appropriate, with districts and schools that have high percentages of unserved LEP students so that they will be in compliance with City and State regulations.

York City public schools during 1989-90, less than 6% received no bilingual or E.S.L. services (out of 67,288 elementary LEP students, 5% received no services; of 16,423 middle school LEP students, 7% received no services; of 26,534 high school LEP students, 6% received no services. See Figures 2-4.) The numbers of students receiving no bilingual or E.S.L. services have consistently decreased over the last four years.

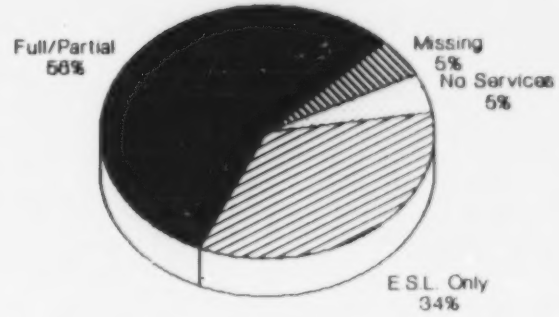
Factors Influencing Provision of Services for LEP Students

As the above data indicate, between 15 and 84 percent of LEP students in each of the 21 sample schools participated in bilingual programs. At the same time, up to 28 percent of LEP students attending these schools received neither bilingual nor free-standing E.S.L. services; the proportions of these students varied at each school.

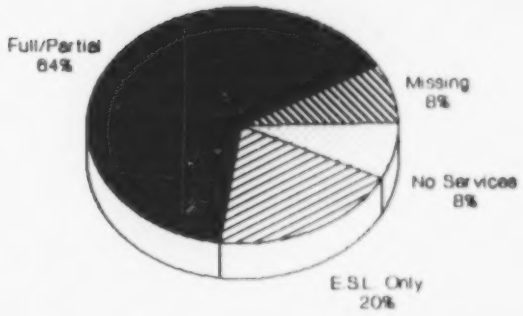
Language Groups. Although all LEP students are entitled to at least E.S.L. services, students belonging to linguistic groups other than Hispanic have more limited access to bilingual services. Many LEP students are Spanish-speaking, thus there are sufficient numbers in many schools to facilitate organizing bilingual classrooms for these students. Because of their smaller numbers, however, fewer schools offer bilingual services to other LEP students (e.g., Chinese, Haitian-Creole, Russian, etc.). Figures 5-8 on the following pages illustrate the citywide distribution of LEP students by language group, level of school, and types of services they receive.

Distribution of Bilingual/E.S.L Services Citywide

Spanish/Elementary



Spanish/Middle



Spanish/High School

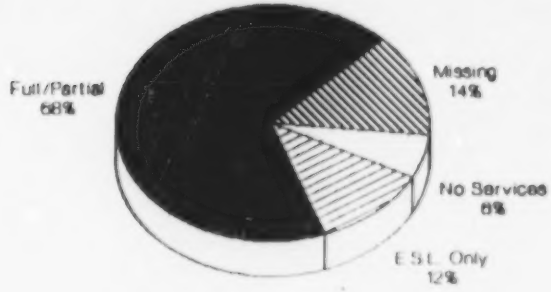
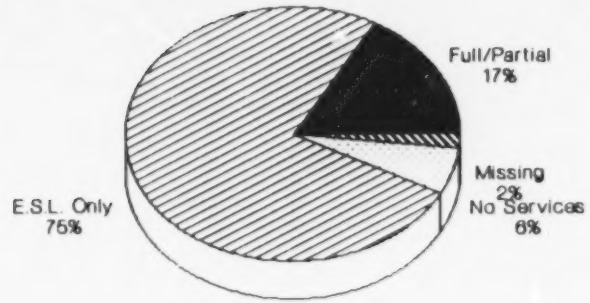


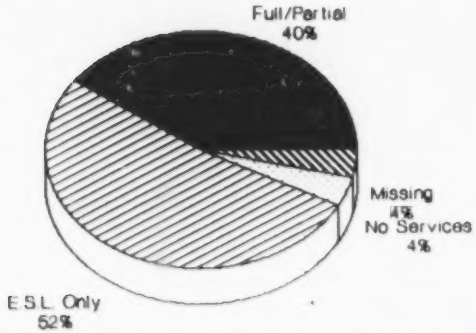
FIGURE 5

Distribution of Bilingual/E.S.L Services Citywide

Chinese/Elementary



Chinese/Middle



Chinese/High School

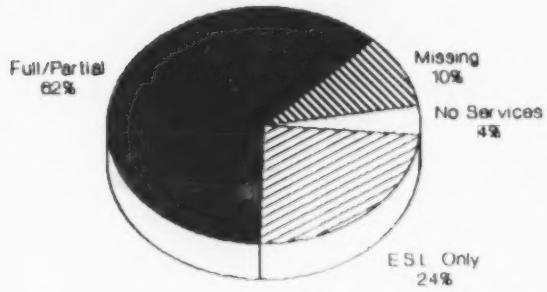
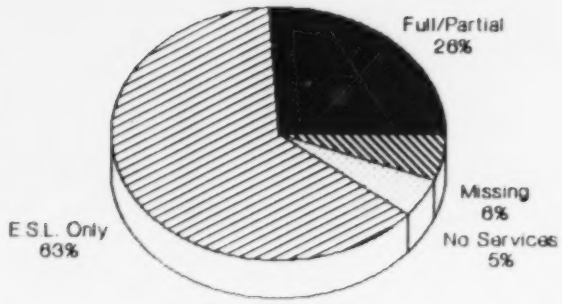


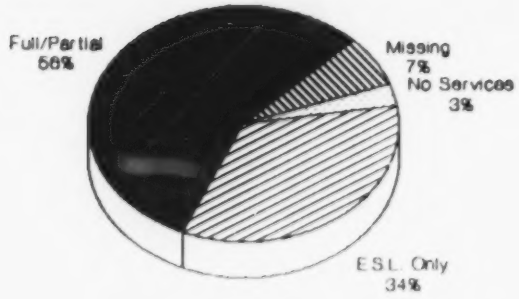
FIGURE 6

Distribution of Bilingual/E.S.L Services Citywide

Haitian-Creole/Elementary



Haitian-Creole/Middle



Haitian-Creole/High School

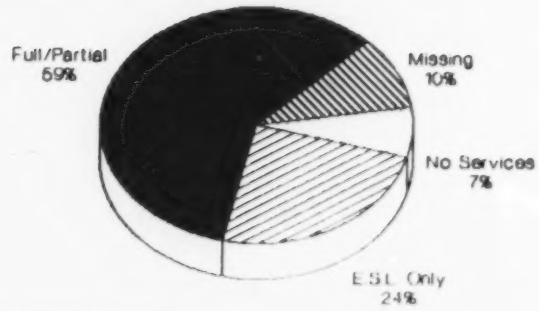
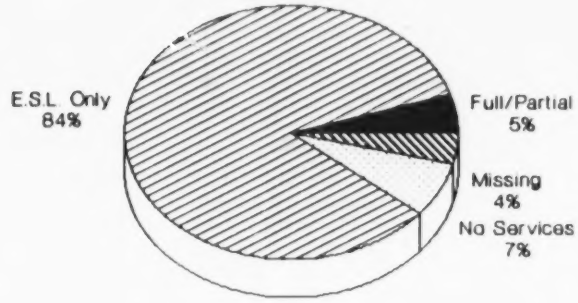


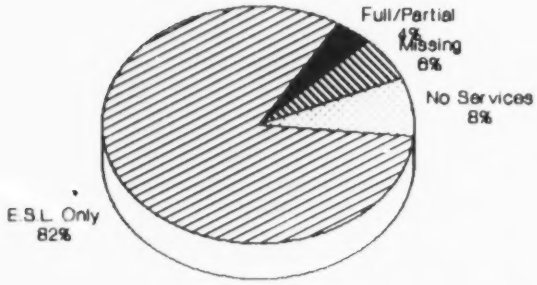
FIGURE 7

Distribution of Bilingual/E.S.L Services Citywide

Other Languages/Elementary



Other Languages/Middle



Other Languages/High School

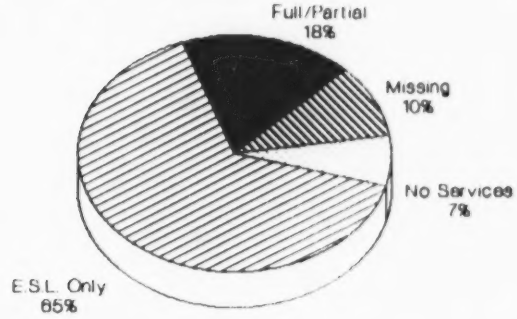


FIGURE 8

Policy Issues. It may also be the case that some school administrators are reluctant to offer such services for other reasons, including a lack of acceptance of the educational rationale behind the New York City public schools' bilingual and/or E.S.L. policies. For example, a field interviewer at one middle school described the school climate as follows:

> "Bilingual classes seem to be 'lumped' together ... The teacher who was presented as the bilingual coordinator stated at one point, 'The A.P. won't speak to you ... she doesn't know anything.' There was a cynical sense that the administration didn't care ... Teachers felt 'separated' and not the big concern of the school."

"Opting Out" and Transfer Options. In New York City schools, parents may choose to "opt" their children out of the bilingual services offered in their school. Of the 21 sample schools, twelve reportedly[12] had no parents opting their children out of bilingual services. Nine apparently had some LEP students who were withdrawn from or declined to participate in their school's bilingual services. Specifically:

- in six of these schools, five percent or less were opted out;
- in two schools, six to 25 percent were opted out;
- in one school, more than 25 percent were opted out of bilingual services.

Overall, the 21 administrators we interviewed reported approximately the same percentage of LEP students who had been opted out by their parents.

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[12] According to the Consent Decree Participation Report and LAU Participation Report, Office of Educational Data Services, BESIS Survey, October 31, 1989.

In addition, small numbers (four to 16 percent) of LEP students in seven of the schools were offered and rejected a transfer to another school providing a wider range of bilingual services than were available at the school in which they were enrolled. About two-thirds of those who withdrew, as well as those rejecting transfer, were Spanish-speaking LEP students -- roughly the same proportion as in the whole LEP student population. Interviews with school administrators and teachers of LEP students indicated that, in some schools, parents were "encouraged" to enroll their children in other schools with bilingual services.

CHARACTERISTICS OF THE TEACHER SAMPLE

During the survey, we interviewed 100 elementary, middle and high school teachers, all of whom had LEP students in their classes. These teachers taught classes which could be grouped into the following categories:

(1) self-contained monolingual classes taught either in English for both LEP and non-LEP students or with an E.S.L. methodology for LEP students only;

(2) self-contained bilingual classes for LEP students only, taught primarily in the students' native language.

(3) departmentalized (including pull-out/in) classes -- monolingual, E.S.L., and bilingual classes containing either both LEP and non-LEP students or all LEP students.

Table 1 provides a breakdown of these 100 teachers by type of class and school level.

TABLE 1

Number of Teachers Interviewed
by Type of Class and School Level

	Type of Class		
	Self-Contained Monolingual	Self-Contained Bilingual	Departmentalized*
Elementary	13	12	7
Middle	1	4	33
High School	-	-	30
Total	14	16	70

* This table represents the total number of teachers interviewed. Some departmentalized teachers taught both monolingual and bilingual classes. Teachers of E.S.L. pull-out/in classes in elementary and middle schools are also included here.

As noted in Table 1, among the teachers we interviewed:

- Fourteen taught self-contained monolingual classes. Of these, 13 taught "regular" elementary classes. One middle school teacher taught an E.S.L. "bridge class" containing all LEPs ranging from grades 6-8.

- Sixteen taught self-contained bilingual classes on the elementary and middle school levels.

- Seventy taught departmentalized content area classes and/or language arts classes (E.S.L., N.L.C.A., or "regular" English) on all three school levels.

  Some of these teachers taught monolingual classes, some taught bilingual classes, and some taught both monolingual and bilingual classes.

Native Languages of LEP Students

As a group, the teachers we interviewed taught LEP students from many different native language backgrounds. Spanish, Chinese, and Haitian Creole were the languages most often represented. Teachers noted that other languages included Korean, Vietnamese, French, Italian, Russian, Greek, Arabic,

Polish, Serbo Croatian (Yugoslavia), Albanian, Tagalog (Philippines), Khmer (Cambodia) as well as some Indian and African languages.

Teachers of bilingual classes taught LEP students who all spoke the same native language, i.e., Spanish, Chinese, or Haitian Creole. In contrast, teachers of monolingual classes (both self-contained and departmentalized) were frequently confronted with the challenge of teaching LEP students from a variety of native language backgrounds -- all of which were likely to differ from the teacher's own linguistic and cultural background. These teachers frequently indicated that they had LEP students from two or more native language backgrounds in the same classroom -- in fact, seven teachers taught classes containing LEP students from six or more native language backgrounds.

Range of Subjects Taught

Self-contained classes. Self-contained monolingual and bilingual classes on the elementary and middle school levels provided English-language instruction and content area instruction in mathematics, science, and social studies. LEP students in "regular" monolingual classrooms received E.S.L. instruction on a pull-out basis, but were taught content-area subjects along with non-LEP students. Teachers of self-contained bilingual classes and the one middle-school teacher of a self-contained E.S.L. class usually provided both English-language and content area instruction themselves.

Departmentalized Classes. As noted earlier, the 70 teachers of departmentalized classes varied widely in terms of subject matter, but fell within two broad categories: specifically language arts and content area subjects. (Appendix C provides a detailed categorization of these teachers by subject matter.)

Table 2 lists the types of language arts classes and number of teachers teaching each type of class. Twenty-six of the 30 teachers who taught E.S.L. classes had LEP students from two or more native language backgrounds in the same class. Teachers of N.L.C.A. classes taught LEP students whose native language was Spanish or Haitian Creole.

TABLE 2

Departmentalized and Pull-out/in Language Arts Classes by Type and Number of Teachers

Type of Class	# Teachers*
E.S.L.	30
Remedial English	4
Regular English	4
N.L.C.A.	18

* Some teachers gave more than one response.

Content area instruction in departmentalized classes included mathematics, science, and social studies. Some teachers taught all three subjects; others specialized in one or two. As noted in Table 3, these subjects were taught in "regular" monolingual, bilingual, and E.S.L. classes.

TABLE 3

Number of Departmentalized Content Area Classes by Subject and Type of Class*

	Type of Class		
	"Regular" Monolingual	Bilingual	E.S.L.
Math	3	5	-
Social Studies	4	7	3
Science	3	9	1

* The same teacher frequently taught more than one content area; likewise, the same teacher sometimes taught different classes on either a "regular" monolingual, bilingual, or E.S.L. basis.

A few teachers taught specialized subjects such as home economics, technology, and Spanish literature. These teachers often taught content area or language arts classes as well.

Forty-four teachers of departmentalized classes taught only one subject. However, 26 teachers indicated that they taught more than one subject; seven of these were teaching three different subjects. Frequent combinations included:

- E.S.L./N.L. Communication Arts,
- Bilingual math/science/social studies,
- E.S.L. and "regular" English, and
- Bilingual and "regular" monolingual content area subjects.

On the elementary level, six of these teachers taught only E.S.L. on a pull-out/in basis; one taught bilingual content areas.

Experience

Overall, the teachers interviewed for this study were relatively experienced. Fifty-eight percent of the teachers

said that they had taught LEP students for five years or more. The teachers interviewed were also a fairly stable group; half reported that they had taught in the same school for five years or more. This percentage reflected the overall stability of all teachers in these schools, whether or not they taught LEP students.

Licensing and Certification

Teacher Responses. The vast majority of teachers who participated in this study were licensed or certified in the area(s) in which they were teaching (see Table 4).

The most common area in which teachers reportedly lacked certification was E.S.L. Nine teachers who had certification in other subjects were teaching E.S.L. classes while two teachers with E.S.L. licenses were teaching "regular" English classes. In addition, seven bilingual teachers did not have certification.

Although the number of teachers who were out of license was relatively small, there was a substantial proportion of teachers in departmentalized programs who were teaching in multiple areas. Clearly, many schools in this study were compensating for teacher shortages by having teachers cover more than one content area.

TABLE 4

Licensing and Certification of Teachers by Type of Class

Class Type	Certified in all areas being taught %	Certified in at least one area being taught %	Not certified in any area being taught* %
Self-contained E.S.L. or monolingual English classes in elementary or middle schools	100% (N=15)	____	____
Bilingual classes in elementary or middle schools	75% (N=12)	____	25% (N=4)
Departmentalized or pull-out classes in elementary, middle or high schools	75% (N=50)	15% (N=10)	10% (N=7)
Teachers of multiple areas	58% (N=14)	42% (N=10)	____
All classes at all levels**	79% (N=77)	9% (N=10)	12% (N=12)

* Certification is for Common Branches or Early Childhood.
** N is <100 due to lack of information on all teachers interviewed.

Administrators' Perceptions: Teacher Certification. Overall, the 18 administrators who responded to this question, seemed to confirm the teachers' responses. Fourteen of the administrators reported that over 75 percent of the teachers were teaching in their areas of certification. Two

administrators thought that 51-75 percent of their teachers were teaching in their areas of certification; two reported that less than 25 percent of the teachers were teaching in their area of certification[13]; and three administrators were unsure of the proportion of teachers teaching in their areas of certification.

Administrators' Perceptions: Teacher Shortages. According to administrators, the area with the greatest shortage of certified teaching staff was bilingual education (11 of 16). Other shortages were reported in E.S.L. (7 of 16) and foreign languages (5 of 16). Concerns of administrators regarding shortages in particular areas of certification were, in some part, confirmed by the teachers' responses.

Staff Shortages. Recruiting appropriately licensed teachers may be problematic for some of these schools, especially since the 21 schools were, on the whole, located in poorer neighborhoods where it might be difficult to attract or retain teachers. One field interviewer at a middle school observed:

> "Staff was ... seriously concerned that LEP services be strengthened. The principal and the E.S.L. teachers were concerned about the large numbers of students who need E.S.L. but [lack of] staffing won't permit it. The teachers, including the bilingual Spanish teacher, seemed very involved and used whatever methods they could think up."

---

[13] In one of these schools, two of the four teachers interviewed reportedly lacked certification in one area in which they were teaching. Information for teachers in the other school was incomplete.

Another interviewer at an elementary school noted:

> "Staff members saw E.S.L. as a major part of their work, since, by their estimates, a very large proportion of the student population was LEP, and there was a lack of LEP teaching staff (only one E.S.L. teacher). The school manages its services to LEP students primarily in self-contained monolingual classrooms. However, they need a bigger program with pull-out for the neediest students."

Thus, the 21 sample schools varied considerably in many respects, including building variables, student characteristics, and percentages of students receiving full/partial bilingual services, free-standing E.S.L. services, or no bilingual or E.S.L. services. The 100 elementary, middle and high school teachers who were interviewed taught LEP students in a variety of classroom settings -- e.g., both self-contained and departmentalized monolingual and bilingual classes. While bilingual teachers taught students from the same native language background, teachers of mainstream monolingual classes frequently faced the challenge of teaching classes containing LEP students from two or more different native language backgrounds, and, in some cases, as many as six or more different native languages.

V. INSTRUCTIONAL DESIGN PATTERNS

Our survey looked at three key aspects of instructional design in classes containing LEP students. These included:

- Curriculum
- Grouping for Instructional Purposes
- Frequency of Instruction in Different Subjects

CURRICULUM

Part 154 of the New York State Commissioner of Education's Regulations calls upon school districts to "provide ... pupils with limited English proficiency equal access to all school programs and services offered by the district commensurate with their ages and grade level." Our survey asked teachers about the differences, if any, in the curricula -- i.e., minimum learning requirements -- they used for LEP and non-LEP students. Specifically:

(1) For English-language instruction, did they follow the New York State secondary E.S.L. curriculum (grades 7-12); New York City curriculum for grades 3-8; or the New York City regular English curriculum?

(2) For content areas, did they follow the same curricula used for non-LEP students? If not, how did they adapt the curricula for LEP students?

English-Language/E.S.L. Curricula

Teachers of self-contained "regular" monolingual classrooms followed the New York City regular English curriculum rather than the New York State or New York City E.S.L. curriculum. Teachers of self-contained bilingual classrooms, however, used either the New York City E.S.L. curriculum or another E.S.L. syllabus.

E.S.L. teachers of departmentalized and pullout/in classes used either or both the New York State or New York City E.S.L. curricula.

Content Area Curricula

Most teachers of self-contained monolingual and bilingual classes as well as departmentalized classes indicated that the math, science, and social studies curricula they used for LEP students were the same as the ones used for classes at the same grade level in which there were no LEP students. Those teachers who modified the curricula for LEP students did so by making the content easier, adding cultural references, or substituting more relevant content. How teachers adapted their methods and materials is discussed in detail later in this section.

GROUPING FOR INSTRUCTIONAL PURPOSES

Grouping by language ability has been described as a common and effective organizational strategy for teaching LEP students. (Wong Fillmore, 1982). Our survey explored how schools and teachers grouped LEP students in terms of English and/or native language proficiency, mastery of content area material, as well as testing, reading ability, and teachers estimates.

Proficiency in English

Teachers of self-contained "regular" monolingual classrooms generally taught LEP students with a wide span of English proficiency (0-40 LAB percentile on the LAB). Teachers' comments reflected the fact that, in many instances, LEP students of varying learning abilities were mixed together:

"The school is small and the program is small; therefore, all levels [of students] are thrown together, although the ideal would be to group them by their respective levels..."

"Classes are very mixed in terms of English proficiency."

"... the students function at different levels within a class and the number of students is insufficient to establish a separate class."

Teachers of self-contained bilingual classrooms, however, indicated that they tended to teach classes to LEP students in either the 0-20 or 21-40 LAB percentile range. Bilingual teachers were also twice as likely to teach LEP students in the lower range (0-20 LAB percentile). Since bilingual classes and teachers are a scarce resource for schools, these programs appeared to be targeted for those LEP students who most needed this type of instructional approach -- those in the lower range. The differentiation between more and less English-proficient students also appears to reflect New York's new policy of serving students in the 21-40 percentile range.

Native Language Proficiency

Two-thirds of the teachers of self-contained bilingual classrooms (10 out of 15) indicated that they used native language (N.L.) proficiency as a basis for grouping LEP students. Teachers of native language communication arts (N.L.C.A.) classes also frequently used native language as a basis for grouping. Other teachers did not use this criterion.

Mastery of Content Areas

Mastery of content areas according to grade level (i.e., cognitive development) is, of course, a basis for determining the

placement of students in appropriate classrooms. A number of researchers have described various models that teachers use to organize LEP students within their classes according to cognitive abilities (Au & Jordan, 1981; Duran, 1990; Jacob & Mattson, 1990). Our survey found that teachers of self-contained bilingual classes (10 out of 12) were most likely to group LEP students according to their level of content area mastery as well as language proficiency.

In addition, a wide range of teachers indicated that they sometimes grouped LEP students on the basis of standardized tests, teacher-made tests, reading ability/level, and teachers' estimates of students' competence. Of these approaches, no one criterion seemed to predominate among the different types of classes.

Nearly all teachers of self-contained bilingual and monolingual classes as well as two-thirds of the departmentalized content area teachers (both monolingual and bilingual) indicated that they modified instruction for LEP students at different cognitive levels. This included such methods as peer tutoring, use of simplified materials, or individualized attention.

FREQUENCY OF INSTRUCTION

Since subject mastery is related to the amount of time a student is engaged in learning with a high degree of accuracy (Wiley & Harnischferger, 1974), as a first step, we wished to determine how many periods LEP students received instruction in various subjects each day, by asking teachers to check the

following categories for each subject they taught:

- 1-4 periods/week (less than one period a day);
- 5 periods/week (one period a day);
- 6-9 periods/week (one to two periods a day);
- 10-14 periods/week (two to three periods a day);
- ≥ 15 periods/week (three or more periods a day).

English-language Instruction

Table 5 highlights how frequently teachers in our survey taught E.S.L. to LEP students.

TABLE 5

Frequency of E.S.L. Instruction
by Type of Class and School Level

	Type of Class and School Level						
	Self-contained "Regular" & E.S.L. Monolingual		Self-contained Bilingual		Departmentalized*		
Periods/ Week	Elem.	Middle (N=12)	Elem.	Middle (N=15)	Elem.	Middle (N=31)	H.S.
1-4	1	-	2	-	2	4	1
5	10	-	6	2	4	8	12
6-9	-	1	1	2	-	2	-
10-14	-	-	1	-	1	2	1
≥ 15	-	-	1	-	-	-	-

* A few teachers of departmentalized classes gave two responses, indicating that different classes received different amounts of E.S.L. instruction.

The findings from this table reveal that:

- Most elementary and middle school teachers reported one period of E.S.L. per day, usually on a "pull-out/in" basis.
- Bilingual teachers, both elementary and middle, were likely to report more periods of E.S.L. per day than monolingual teachers.

- Middle school teachers, whether bilingual or monolingual, were also more likely to report a greater frequency of E.S.L. periods per day than teachers at other levels.

- High school teachers overwhelmingly indicated that they taught each class for one period per day. High school students entitled to Chapter 1 classes, however, are routinely programmed for more than one period of English-language instruction per day -- even though they may have a different teacher for each class.

Teachers of self-contained "regular" monolingual classes indicated that their LEP students received English-language instruction in other ways as well. Their responses, while not quantified by number of class periods, included:

- spending time on speaking and listening skills,

- learning content areas in English, and

- teachers' efforts to provide additional E.S.L. through individualized attention, conversations with students, storytelling, etc.

Content Area Instruction

Teachers we surveyed indicated the following trends in terms of frequency of content area instruction:

Elementary and Middle School Teachers:

- Math. Over three-fourths of the teachers in both self-contained monolingual ("regular") and bilingual classes on the elementary and middle school levels taught math on a daily basis.

- Science and Social Studies. More than three-fourths of these teachers taught science and social studies less than one period a day. The remainder taught these classes on a daily basis.

High School Teachers:

- All content area high school teachers in math, science, and social studies indicated that they taught these subjects one period a day.

Coordination Among Teachers

Elementary teachers and E.S.L. teachers (at all levels) indicated that they coordinated LEP student instruction with other teachers. Problems of coordination seemed to be greater at the middle and high school levels. Several high school teachers commented:

> "There is little articulation between disciplines. There should be more interaction between E.S.L. and social science and science. ... strongly believe in teaching E.S.L. through content area."
>
> "There could be better coordination in terms of E.S.L. between teachers. One teacher is unaware of what students learned from the other teacher."
>
> "I would like content area teachers to present lists of vocabulary to E.S.L. teachers."

In summary, teachers of self-contained monolingual and bilingual classes varied in terms of their instructional design choices for LEP students. These choices included whether they followed the New York City regular English curriculum or the New York City E.S.L. curriculum, how they grouped students for instruction, as well as frequency of instruction in different content areas.

VI. TEACHING PRACTICES

Our survey asked teachers to indicate the different instructional approaches, methods, and materials they used to teach LEP students and to comment on those practices which they found most effective. This chapter highlights survey findings in the following areas:

- Approaches to Teaching E.S.L.
- Methods for Content Area Instruction
- Materials

APPROACHES FOR TEACHING E.S.L.

As noted earlier, many instructional approaches are available for teaching E.S.L. (Chamot & Stewner-Manzanares, 1985). Our survey found that all teachers who provided English-language instruction to LEP students in E.S.L. pull-out/in classes and self-contained classes (both monolingual and bilingual) used a wide range of approaches. When asked to indicate specific approaches listed on the survey form, most teachers gave multiple responses. These included:

- Language Experience
- Whole Language
- Total Physical Response
- Communicative
- Natural
- Audiolingual
- Content Based
- Grammar/Translation
- Eclectic
- Notional/Functional
- Counseling/Learning
- Code Switching

No one approach appeared to predominate in any type of classroom setting; instead, numerous approaches seemed to be used by different types of teachers, depending on the instructional objectives, ability of the students, and school level. This was

especially apparent when teacher responses were analyzed by type of class.

Frequency of Responses

Based on interview responses, Table 6 lists the approaches used by all teachers who responded in order of frequency of response.

TABLE 6

English-Language Instructional Approaches
Used by Teachers in All Types of Classes

Instructional Approach/Strategy	Number of Teachers Reporting Use of Each Approach/Strategy
	50 40 30 20 10 0
Language experience(45)	
Whole language approach(43)	
Total physical response(42)	
Communicative(39)	
Natural approach(36)	
Audio-lingual(34)	
Eclectic(30)	
Content-based(29)	
Grammar/Translation(24)	
Notional/Functional(18)	
Counseling/Learning(15)	
Code Switching(9)	

* 61 teachers responded to this question and frequently gave multiple responses. Numbers in parentheses ( ) indicate frequency of teacher response.

An analysis of this table reveals that:

- Overall, approaches designed to facilitate social communication skills and cognitive-academic language development seemed to be the most frequently used: Language Experience, Whole Language, Total Physical Response, Communicative, and Natural.

- Audiolingual, a more traditional approach entailing drills, repetition, and grammar, was frequently

mentioned as well. While used, it is not regarded as effective as approaches emphasizing cognitive language development. (Ramirez & Stromquist, 1979).

- Eclectic (combining several instructional approaches) and Content-based approaches (using language instruction to master content area material) were frequently used as well.

Approaches Used to Teach English in Different Classroom Settings

When teacher responses were analyzed by type of class, our survey found that teachers in different classroom settings varied in terms of the approaches they used to teach English.

E.S.L. Classes. Table 7 outlines the frequency of instructional approaches reported by teachers of E.S.L. classes on the elementary, middle, and high school levels. These teachers' multiple responses indicate that they used a wide range of approaches. All elementary and middle school E.S.L. teachers reported that they used Language Experience and Total Physical Response. Frequently used in conjunction with each other, both approaches are considered effective by researchers (Chamot & Stewner-Manzanares, 1985). The Content-based approach was more prominent among middle school E.S.L. teachers than among elementary E.S.L. teachers.

Nine of the 12 high school E.S.L. teachers listed four or more approaches; however, there was not the strong uniformity of responses among these teachers as among the other E.S.L. teachers. Communicative and Language Experience were the most frequently checked responses, but these were closely followed by Whole Language, Natural, Content-based, Eclectic, Audiolingual, and Total Physical Response.

As noted earlier, most teachers used several different approaches and/or methods to teach LEP students. Research suggests that the use of multiple approaches -- i.e., Eclectic -- is likely to meet students' needs on a daily basis, although this strategy is not guided by a unified framework of learning theory (Chamot & Manzanares, 1985).

TABLE 7

Instructional Approaches Reported by Elementary, Middle, and High School E.S.L. Teachers

Instructional Method	Frequency of E.S.L. Teacher Responses* by School Level		
	Elementary N=6	Middle N=14	High N=12
Language experience	6	12	8
Whole language approach	4	10	7
Total physical response	6	13	6
Communicative	3	11	9
Natural approach	4	11	7
Audio-lingual	4	10	6
Content based	1	10	7
Grammar/Translation	1	8	3
Eclectic	4	9	7
Notional/Functional	2	5	5
Counseling/Learning	2	5	3
Code Switching	1	3	-

* Teachers gave multiple responses.

Self-contained Monolingual Classes. Whole Language, an approach which emphasizes the development of oral and written communication skills, was the most frequently cited approach for teachers of self-contained "regular" monolingual classes. The Communicative approach was also frequently listed, perhaps because of the social language skills LEP students need to

function in a class with non-LEP students. These approaches were accompanied by such activities as peer tutoring, the buddy system, and classroom discussion (e.g., verbal exercises, question-and-answer sessions, and "peer connection through conversation").

The third most frequently used approach was the Content-based approach -- most likely because these teachers also interacted with LEP students around mathematics, science, and social studies for several periods a day. These teachers also commented that they found more traditional Audiolingual activities such as dictation, repetition, and drills emphasizing pronunciation, syntax, and grammar to be effective teaching methods.

Self-contained Bilingual Classes. Teachers of self-contained bilingual classes (who usually taught E.S.L. themselves) as well as native language communication arts (N.L.C.A.) classes most frequently listed Language Experience and Total Physical Response. Whole Language, Audiolingual, Natural, and Communicative approaches were reported as middle-range frequencies.

In contrast to their monolingual counterparts, these teachers reported that the methods they found most effective included experience charts, classroom discussion, and activities associated with the Total Physical Response approach (e.g., role playing, pantomime, and puppetry). They also commented that bilingual instruction was effective for learning English.

Effective Practices: Teachers' Viewpoints

When commenting on which practices they found most effective for teaching LEP students, teachers in all types of classes tended to cite specific activities they used in their classroom rather than naming "formal" approaches or methods. Their responses ranged from creative, holistic activities such as:

- song, puppetry, and drama,
- literature (including folktales and poetry),
- cultural activities,
- buddy system and peer tutoring, and
- experience charts

to more traditional activities such as vocabulary and grammar drills, writing vocabulary words on the blackboard, and dictation assignments. These activities, of course, correspond to approaches ranging from the more innovative Language Experience and Total Physical Response approaches to the more conservative Audiolingual approach. Considering that the Audiolingual approach has been used extensively in U.S. classrooms for decades, it is not surprising that teachers continue to cite it as an effective approach, even though research suggests that newer approaches such as Whole Language and Total Physical Response seem to be more effective (Chamot & Manzanares, 1985; Ovando & Collier, 1985; Ramirez & Stromquist, 1979). One teacher also mentioned an innovative alternative learning project -- the BRAVO program:

> "This could be used as a model for other schools with LEP students. [This program] is a combination of the smartest

> of English- and Spanish-speaking students and has had positive results ... the multicultural and bilingual emphasis has proven effective."

METHODS FOR CONTENT AREA INSTRUCTION

More than three-fourths of all teachers of content area subjects noted that they adapted the methods they used to teach mathematics, science, and social studies to their LEP students. One middle school teacher of a monolingual "regular" class commented:

> "LEP students don't know the language well enough to succeed academically, and if the teacher doesn't modify instruction or instructional practices, there is no transition."

Our survey asked these teachers to list the various methods they used to teach mathematics, science, and social studies to LEP students (see Table 8).

TABLE 8

Number of Teachers Reporting Instructional Methods*
to Teach Content Areas

Method	Type of Class: Self-Contained Monolingual (N=11)	Self-Contained Bilingual (N=14)	Departmental (N=28)**
Use visuals	11	14	26
Use realia (real objects)	9	12	13
Hands-on experience	10	11	8
Specialized materials	4	10	15
Extra vocabulary	12	10	22
Modify English syntax	10	10	15
Modify N.L. level used	-	9	8
Infuse students' culture	10	14	21
Stress multicultural understanding	9	13	20
Provide supplementary materials in students' N.L.	3	13	7

* Teachers gave multiple responses.
** A breakdown of these teachers' responses by subject is described in the text that follows.

Self-Contained Monolingual Classes

Most teachers of self-contained "regular" monolingual classes were likely to use materials/methods such as visuals and realia, extra vocabulary, cultural infusion (i.e., encouraging students to draw on their own cultural experiences as much as possible when learning new ideas by making frequent comparisons between cultures), as well as modifying the English syntax of what they were teaching. These methods encompass some of the characteristics of effective teaching behaviors identified in The Significant Bilingual Instructional Features Study (Tikunoff, 1983). In addition, Krashen (1990) also supports the use of "comprehensible input" by modifying language for LEP students in

order to increase their understanding of classroom material.

Self-contained Bilingual Classes

Teachers of self-contained bilingual classes seemed to consistently use the widest range of methods, since they were able to incorporate the students' native language and specialized materials into their instructional methods. In addition to using visuals and realia, they also relied heavily on infusing students' culture, stressing multicultural understanding, and using materials in the students' native language. These teachers often commented that maintenance of the students' native language while facilitating a transition to English was an effective method as well. This has also been confirmed by researchers Ovando, Collier (1985), Krashen and Biber (1988).

Departmentalized Science Classes

Among the eight departmentalized science teachers (bilingual, E.S.L. and monolingual) who responded, the most frequently used methods included the use of visuals, extra vocabulary, hands-on experiences, cultural infusion, and multicultural understanding. As might be expected, only bilingual science teachers indicated that they used specialized materials, modified the native language (N.L.) level used, or provided N.L. materials.

Departmentalized Social Studies Classes

Nine social studies teachers (bilingual, E.S.L. and monolingual) indicated that they used visuals, extra vocabulary, specialized materials, modification of English syntax, and

multicultural understanding. Again, bilingual teachers utilized more learning strategies than the monolingual or E.S.L. teachers, including extra materials in the LEP students' native language and modifying the N.L. level used.

Departmentalized Mathematics Classes

Only two monolingual mathematics teachers responded to this section of the questionnaire. Both indicated that they used visuals, hands-on experiences, and extra vocabulary to adapt instruction to their LEP students. They also mentioned additional activities such as games, peer tutoring, and transformation drills. Two middle school teachers commented:

> "We need more hands-on demonstrations in the math curriculum. Some LEP students have literary talents and can express themselves in Spanish but it's sad because they cannot do this in English as well and the teachers do not see it."

> "In mathematics classes, the emphasis is on measurement. I encourage LEP students to practice more and have hands-on experience with applied mathematical concepts."

Use of Native Language to Present Content Area Material

The balance of instruction in both the native language and English is an important consideration when teaching in a bilingual classroom setting (Ovando & Collier, 1985). Our survey asked teachers of self-contained and departmentalized classes to indicate how they apportioned their instructional time in terms of using LEP students' native language and English.

Self-contained Bilingual Classes. As expected, all teachers of self-contained bilingual classes used their students' native language when teaching mathematics, social studies, and science.

Tbe majority of teachers reportedly spent more than 75 percent of their time teaching these subjects in Spanish or Chinese. This is consistent with the New York City Consent Decree's stipulation that content area instruction be presented in the students' native language in bilingual classes. Bilingual teachers noted that they used LEP students' native language for many different purposes: to teach, manage their classes, ask questions, give feedback, and clarify information. Relatedly, the majority of these teachers also noted that they spent less than 25 percent of their time teaching content area material in English.

Teachers of Departmentalized Classes. Monolingual teachers taught content area material in English. Bilingual content area teachers indicated that they taught these subjects primarily in the students' native language (more than 75 percent of the time), and less than 25 percent of the time in English. The few teachers who taught both monolingual and bilingual classes changed languages depending on the particular linguistic composition of the class they were teaching.

MATERIALS

Appropriate materials are considered to be a critical component of an effective bilingual/E.S.L. program (Feeley, 1983; Krashen, 1985; McCracken & McCracken, 1979). Our survey asked teachers to describe the types of materials they used; whether they had sufficient teaching materials; and whether they felt that the materials were appropriate for LEP students.

Range of Materials

In addition to standard printed materials such as bilingual/E.S.L. textbooks and dictionaries, teachers indicated that they used a wide range of instructional materials geared towards LEP students. These included:

- Printed Materials - newspapers, workbooks, and translated materials such as the Declaration of Independence (translated into Spanish);
- Manipulatables - sand tables, clay, and cubes;
- Audio-visuals - video/filmstrips, television programs, audio tapes, posters and pictures, and labels;
- Hands-on experiments - materials for science and/or math activities.

Despite such a wide range of materials, the responses of different types of teachers frequently overlapped. For example, teachers of self-contained monolingual classes found manipulatables just as important as departmentalized content area teachers. Teachers also suggested additional materials they felt would be effective in teaching LEP students. One teacher noted:

> "I would like to see E.S.L. content-based instruction with appropriate computer software."

Access to and Appropriateness of Materials

For both English-language and content area instruction, teachers of bilingual and departmentalized classes seemed to have greater access to commercially developed materials for LEP students than teachers of self-contained monolingual classes (who reportedly had less access to these materials). Nearly all of the bilingual and E.S.L. teachers indicated that they used both commercial materials and those developed by their local school

district. Teachers cited such commercial materials curricula as Side by Side, Steps to English, Learning in a Multicultural Environment, and Curriculum Connection. At the same time, many teachers indicated that they did not have sufficient materials for LEP students. Commented one teacher:

> "We are spending $2-4 million on a playground outside the building while students are required to share books."

They were also less likely to feel that "all" or "most" of the materials they had were appropriate for LEP students. Several teachers noted:

> "We need more materials slanted to a particular language such as Chinese dialects as well as more materials and special kits geared towards these needs."

> "Materials should be geared toward the experience of teenagers, and then they should be asked how the material affects them and makes them feel. This is good for motivation and creativity. Poetry and literature motivate them."

> "There is a great need to provide LEP students with E.S.L. textbooks appropriate for their level of English, and more up-to-date materials."

Thirteen of the 15 teachers of self-contained monolingual classes indicated that they also developed materials to teach English language arts to their LEP students. Only six of these teachers, however, used commercial E.S.L. materials in their classes, and only four noted that they felt they had sufficient instructional materials available.

Nearly all teachers of self-contained bilingual classrooms noted that they had input into the purchase of materials for LEP students, but only half of the teachers of self-contained monolingual classrooms reportedly had such input. Three-fourths

of the bilingual teachers noted that they had sufficient content area materials, but only half of the teachers of self-contained monolingual and departmentalized classes indicated that they had sufficient materials[14]. A middle school teacher commented:

> "Special fundin, for more materials and teacher input on that selection is needed. Also special funds for field trips to help orient kids to their new cultural environments."

Thus, survey findings indicated that teachers (both monolingual and bilingual) in the sample schools utilized a broad range of both instructional strategies/approaches and materials to teach LEP students, both for E.S.L. and content area instruction.

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[14] Because many of these teachers taught several different subjects -- sometimes in English and sometimes bilingually -- it was not possible to get a more detailed breakout of these teachers' response.

VII. NON-INSTRUCTIONAL COMPONENTS

This chapter summarizes survey information describing the following non-instructional components of LEP student services:

- Support Services for LEP Students
- Staff Development
- Parent Involvement

SUPPORT SERVICES FOR LEP STUDENTS

Because the effectiveness of a school or program lies in part in the domains beyond instruction (Carter & Chatfield, 1986; Ogbu & Matute-Bianchi, 1986; Valadez & Gregoire, 1990), part of this survey focused on the support services that were available to LEP students. Questions covered support for both academic difficulties and adjustment problems. All of the teachers and administrators in the sample were surveyed.

Academic Support

Teachers and administrators indicated that LEP students who were experiencing academic difficulties had access to a range of support services. The most common were:

- teachers' help before or after school,
- peer tutoring,
- volunteer or professional tutoring, and
- referrals to community agencies.

Teachers were most frequently indicated as sources of academic support (73 percent of 106 responses), followed by peer tutoring (70 percent). A number of staff also included volunteer or professional tutoring (46 percent) and referrals to outside agencies (37 percent). Less frequently mentioned were guidance

counselors (9 percent) and paraprofessionals (7 percent). Other sources of support included special instructional programs for the students (i.e. resource room, independent study), and activities involving the students' families (family groups).

Our data suggest that LEP students in bilingual self-contained classrooms and departmentalized classrooms (regardless of language approach) had better access to academic support than those in the English-only classrooms. Most of the monolingual teachers relied on peer tutoring, volunteer or professional tutoring as sources of academic support for LEP students (see Table 9). Only three mentioned teachers as a source of academic support.

TABLE 9

Academic Support Available to LEP Students

	Self-Contained Mono. N=12	Bil. N=15	Dept. N=58	Admin. N=21	Total N=106
Peer Tutoring	9	10	41	14	74
Vol./Prof.	8	5	23	13	49
Teachers	2	12	46	17	77
Referrals	3	6	21	9	39
Paraprofessional	0	1	6	2	9
Guidance Staff	0	0	6	4	10
Other	0	0	5	12	17

In contrast, most of the teachers of bilingual self-contained and departmentalized classes relied on both teachers and peer tutoring as sources of academic support. Although peer tutoring appeared to be a common method for all types of

teachers to reach LEP students, the bilingual teachers would appear to be better able to structure and supervise the tutoring than monolingual teachers. Also, by relying on professional and volunteer tutors, or bilingual peers, monolingual teachers appeared to have less of an opportunity to interact with those LEP students who needed more attention.

Subject Areas. In the self-contained classrooms (bilingual and monolingual), almost all (21) of the teachers reported that academic assistance was available in the subject areas of English and mathematics. Many (8) bilingual teachers included native language communication arts (N.L.C.A.) as a subject where assistance was available, whereas few (3) of the monolingual teachers did. Ten teachers also mentioned social studies and science. Departmentalized and pull-out/in teachers were not asked to respond to this question.

Assistance in English and Other Languages. According to the school staff, academic services were mostly available in the English language (71 percent of 100 responses) followed by Spanish (65 percent). Also available, but to a lesser degree, were services in Haitian Creole (12 percent), French (9 percent), and Mandarin or Cantonese (9 percent). Two teachers also mentioned Korean, while Italian and Greek were named by one person each.

Self-Contained Classes. The availability of academic assistance to LEP students in their native languages depended largely upon whether these students were in a monolingual or

bilingual classroom. All 26 of the teachers in either monolingual or bilingual self-contained classrooms reported that tutoring services were available to LEP students in English. All 14 bilingual classroom teachers reported that academic assistance was also available in the students' native languages. These teachers represented seven schools, six which offered support in Spanish, and one in Mandarin and Cantonese. In contrast, only five of the 12 monolingual classroom teachers stated that assistance was available in a language other than English. Three of those who mentioned a second language indicated Spanish and two indicated Cantonese.

Departmentalized Classes. Many of the teachers of departmentalized or pull-out/in classes reported that academic assistance was available in both English and the students' native languages. Teachers in 14 of the 18 schools represented mentioned the availability of academic assistance in both Spanish and English. Although some content area teachers named two or more languages, they were more likely to mention either English or the native language depending upon the language they used to teach the class.

Counseling and Non-instructional Support

Valadez and Gregoire (1990) have suggested that counseling services in LEP students' native language is an important component of bilingual education services. Overall, our findings indicate that counseling services were more likely to be available in English than the students' native languages.

Even when bilingual counseling services were available, few LEP students were assigned a bilingual counselor. Also, LEP students in bilingual classes were more likely to have access to counseling and other support services in their native languages than those in monolingual English classes.

Of the 43 teachers and administrators who responded to this question, more than half (27) indicated that no LEP students were assigned counselors who spoke their native language. Thirteen respondents stated that all or most LEP students were assigned bilingual counselors. Among the bilingual teachers, half (7) indicated that some or most LEP students were assigned bilingual counselors. In contrast, none of the monolingual teachers reported that LEP students were assigned bilingual counselors. The lack of response on this question may indicate that they either did not want these services or they were unavailable.

According to the administrators' interviews, LEP students in middle or high schools were more likely to be assigned a bilingual counselor than those in elementary schools. Only one elementary school administrator reported that LEP students were assigned a bilingual counselor. In contrast, two-thirds of the middle and high school administrators indicated that at least some LEP students were assigned bilingual counselors.

Most of the administrators (16) reported that counselors were available to LEP students "as needed". Others stated more specific times. Five said that the students saw their

counselors twice a year. Three indicated the frequency as between three and six times a year. One administrator reported that recently arrived LEP students met with a counselor weekly. Another mentioned that the students saw a counselor daily. The "as needed" category was sometimes a part of a multiple response; therefore, the total number of responses exceeded the number of administrators who responded to this question (20).

Several respondents commented that counseling services were extremely important for LEP students. Specifically:

> "Above all, LEP students need to work on self-esteem. Their lack of confidence is a problem, so I stress counseling on an individual basis."
>
> "We need more guidance counselors for new Haitian students. They should decide placement of new students and test students, but don't always."

The Language of Counseling Services. About half of the staff who responded (22 of 42) indicated that counseling services were available in the English language, and 20 also included Spanish as a language in which services were available. Other languages were less frequently represented. Creole was mentioned by four persons, and French, Mandarin, and Cantonese were each mentioned by two. One person indicated that services were available in Italian.

Similar to the findings on academic support, the availability or awareness of counseling in the student's native language depended largely upon whether the student was in a monolingual or bilingual classroom. Almost all (12 out of 13) of the bilingual teachers reported that these services were

available in the students' native languages. In contrast, only one out of the nine monolingual teachers indicated that counseling services were available in a language other than English.

Teachers and administrators were asked to indicate other school staff and individuals who were available to help LEP students with problems of adjustment. The pattern of responses differed by type of respondent (see Table 10). While administrators were more likely to draw equally upon the bilingual and monolingual staff, monolingual teachers were more likely to list English-speaking staff; bilingual teachers indicated bilingual personnel as sources of support. Administrators were considered a source of support by several teachers, four of whom specified the principal and three who named the assistant principal. Among the respondents, administrators were most likely to indicate community agencies as a source of support, probably due to their greater awareness of this resource. Other sources of support included English-speaking family assistants, bilingual and English-speaking peers, parents, the school mental health team, the pupil personnel coordinator, and mentors.

TABLE 10

Non-instructional Support Services for LEP Students

	Monolingual N=12	Bilingual N=15	Administrators N=21	Total N=48
Bil. Counselor	1	7	10	16
Eng. Counselor	8	3	11	22
Bil. Teacher	5	12	11	28
Eng. Teacher	8	2	10	22
Bil. Family Asst.	1	3	6	10
Eng. Family Asst.	3	1	5	9
Bil. Paraprof.	0	8	8	16
Eng. Paraprof.	2	2	6	10
Bil. Peers	2	1	7	10
Eng. Peers	4	1	8	13
Referrals	4	1	14	19
Other	0	11	17	28

Support for LEP Students in English Content Classes. Some LEP students are placed in content area classes where instruction is provided solely in English. Administrators were asked to indicate the types of support these students were given. Of the 21 administrators interviewed, less than half (8) responded to this question. Most of them (7) indicated that these students were provided with an in-class buddy or peer tutoring. Many also cited paraprofessionals (4) or an in-class translator (3). Also mentioned were after-school tutoring and a family assistant. This finding seems to indicate that few provisions are made for LEP students in English content classes.

Support for Students Passing the Cutpoint. After students pass the Language Assessment Battery (LAB) cutpoint score at the 40th percentile, they are no longer entitled to bilingual/E.S.L.

services. Administrators were asked to describe the types of services provided to formerly LEP students. However, less than half (8) of them responded to this question. Among those who answered, six stated that the bilingual staff checks on these students. Five administrators each mentioned culture clubs, student monitoring, and student mentoring as sources of support. Tutoring was mentioned by four administrators. Also mentioned were enrichment activities, after-school programs, and having bilingual guidance counselors on staff.

This lack of response may indicate that once LEP students are mainstreamed, there is little formal support offered to them. While it may be available, they most likely have to seek it out on their own.

STAFF DEVELOPMENT

The quality and scope of the training that teachers of LEP students receive is, of course, critical in determining the effectiveness of a school's bilingual/E.S.L. services. As noted in Chapter III, this covers a number of areas, including:

- specialized bilingual instructional skills (Faltis & Merino, in press; Ulibarri, 1970);
- training in assessing LEP students' language and cognitive proficiencies (Mace-Matluck, 1985; Santos, 1977);
- training and practice in dual-language instruction (Santos, 1977);
- how to adapt curriculum and materials to the needs of LEP students (Armor et al., 1976);

- how to utilize different types of classroom organizations for more effective teaching of LEPs (Au & Jordan, 1981; Santos, 1977).

Our survey asked teachers whether they had received training to help them meet the needs of LEP students, as well as who had provided the training. Administrators were also asked about staff development for teachers of LEP students.

Teacher Responses

Overall, the teachers of LEP students received more training from the district than from their own schools. Only 41 percent of the teachers who responded indicated that they received training from their schools for teaching LEP students, whereas 58 percent of all the teachers reported having received such training from the district. Many teachers (68 percent) also indicated that they had received other relevant training, including college-level coursework, workshops, and citywide E.S.L. conferences.

The proportions of teachers receiving special training varied with the type of classes they taught. Most teachers of bilingual classes reported that they had received school, district and additional training. Most E.S.L. teachers indicated that they had not received training from the school but had received training from the district and other sources. In contrast, most teachers of "regular" monolingual classes reported that they did not receive training from either the school or district.

Administrators' Perceptions

Contrary to teachers' responses, most of the administrators (17 of 21) reported that their schools provided relevant training to teachers of LEP students. The training techniques most frequently cited included giving demonstration lessons, doing classroom observations, and providing inservice teacher training. Confirming teachers' responses, most of the administrators (17 of 21) also reported that teachers of LEP students participated in other training, particularly citywide E.S.L. conferences, workshops and college-level course work. Almost all of the administrators felt that teachers of LEP students needed additional training, especially in teaching techniques such as E.S.L. strategies and methods.

Typical comments included:

> "Teachers need additional training on techniques for teaching small groups of kids, cultural sensitivity, exposure to new approaches and materials, and classroom management."

PARENT INVOLVEMENT

Researchers have found that parent involvement in LEP students' education contributes to their academic achievement (Gardner, 1979; Ogbu & Matute-Bianchi, 1986; Snow, 1990), influences their attitude towards learning English (Gardner, 1979) and affects how they interact with their surrounding community (Fisher & Guttrie, 1988; Glenn, 1990; Ogbu & Matute-Bianchi, 1986).

Contact with Parents

When asked about the frequency of their contact with parents of LEP students, the majority of teachers of self-contained monolingual classes said that contact varied with the child and the circumstances. A few teachers noted that they had an open-door policy in which parents were invited to visit the school according to their interest, and at their convenience. An additional two out of 14 reported that they had contact with parents only when needed, while another two had contact with parents twice a year.

For teachers of self-contained bilingual classes, six out of 16 reported that they communicated with parents informally at school. Five out of sixteen reported meeting with parents on a monthly basis, while another five reported that the frequency of contact with parents varied with the individual child in question.

The majority (39 out of 69) of teachers of departmentalized or pull-out/in E.S.L. classes also reported that the frequency of contact varied with the student. This comment was often accompanied by other responses, such as sending letters home to parents and informally meeting parents at school (e.g., meeting a parent as he/she picked their child up from school). Some of these teachers also indicated that they met with parents twice a year (nine out of 69).

The majority of teachers across schools and grade levels had some contact with students' parents based on individual

needs and circumstances; bilingual teachers seemed to have somewhat more contact. This is, of course, understandable since they can communicate with parents in their native language. In addition, contact was not necessarily structured and planned beforehand. Much took place informally at school or through letters sent home from school.

Outreach Efforts

Administrators described how their schools attempted to contact and involve parents of LEP students. All of the administrators reported that their school had a staff person who could communicate with parents in their native language. Almost all of the 21 administrators mentioned that they sent important notices to parents in their native language. A few schools commented that they offered E.S.L. classes to help parents learn English, either during the day or at night. One elementary school respondent noted:

> "It helps for parents to be learning English ... we need to give them a place to learn."

Administrators also reported that while they offered parents of LEP students a variety of activities such as parent association meetings, workshops and parent-teacher conferences; these events did not seem to be well attended. Seven administrators also reported that school staff made visits to students' homes as well.

Other Factors Affecting LEP Student Outcomes

Teachers and administrators were asked whether they thought any other school, community, or cultural factors affected LEP student outcomes, such as achievement and dropping out. The most frequently cited factor was attendance. Some respondents attributed poor academic performance to high rates of family mobility which caused LEP students to change schools frequently.

At the same time, teachers and administrators frequently commented positively on LEP students' motivation:

> "LEP students are highly motivated. They want to overcome their problems, want to be successful academically. LEP students seem well prepared socially to work with other students ... they are outgoing and don't differ that much from anyone else."
>
> "LEP students account for high attendance and high performance."

Another staff member offered a different perspective:

> "Socialization is important. In the beginning, LEP students are really scared of the other students; some won't even go to lunch. They keep to themselves. Some students wear summer clothes in winter, and other kids make fun of them. The parents don't know either. I try to teach them everything -- hygiene also."

Many teachers and administrators also noted the importance of personal, social or economic problems; these included drug abuse, homelessness, and poverty. Additional factors thought to affect student outcomes were parental cooperation and involvement and educational values.

VIII. SCHOOL CLIMATE

This chapter discusses the following issues relating to school climate in the schools covered in our survey:

- Status of Bilingual/E.S.L. Programs
- The Mainstreaming Process
- School-Based Planning

STATUS OF BILINGUAL/E.S.L. PROGRAMS

A critical factor in determining how effective a bilingual/E.S.L. program will be within a school is the "status" of the program among the school staff and administration (Carter & Chatfield, 1986; Glenn, 1990). Our survey looked at a number of aspects pertaining to this issue. Specifically:

(1) whether the school clearly specified the objectives of its bilingual/E.S.L. program;

(2) whether teachers and administrators felt that school staff understood these objectives;

(3) how field interviewers assessed the overall school climate vis-a-vis bilingual/E.S.L. services in the schools they visited; and

(4) whether the administration was regarded as "sensitive" to LEP student needs.

Across schools, the majority of teachers and administrators indicated that their schools clearly specified the objectives of the bilingual/E.S.L. program and that school staff understood these objectives. At the same time, the responses differed among different types of respondents. For example:

- Teachers of Self-contained Monolingual Classes. Over half of these teachers indicated that their school both specified its bilingual/E.S.L. program objectives and that staff understood them.

- Teachers of Self-contained Bilingual Classes. Three-fourths of these teachers (12 out of 16) noted that their school specified its bilingual/E.S.L. program objectives. However, somewhat fewer (9 out of 16) bilingual teachers indicated that school staff understood the program objectives.

- Teachers of Departmentalized Classes. Sixty-six percent of this group (46 out of 70) reported that their school clearly specified the bilingual/E.S.L. program objectives. Twelve indicated that their school did not.

Scope of School Services

Even when teachers reported that there were few bilingual or E.S.L. services, a majority of teachers and administrators indicated that their school's bilingual program objectives were clearly specified. Thus, the absence of a full range of bilingual/E.S.L. services did not necessarily mean that the school's objectives were unclear. Conversely, the presence of full services did not guarantee clarity or understanding of objectives. Among those teachers who felt that their schools did not specify clear program objectives, almost half taught in schools that offered a full range of services, while the others taught in schools where the majority of LEP students received no services or E.S.L. only.

Likewise, the existence of a full program did not guarantee that school staff was perceived as understanding the program objectives. Many teachers from schools with formal, visible programs reported that staff did not understand the objectives. Teachers from schools with few services also made these comments. These perspectives are in all likelihood grounded in different sets of issues in each type of school. One middle

school teacher summarized his experience in two different schools:

> "The school has not defined goals for this program, and without this, the program won't work. There are no materials available in this school. It feels like the school is providing services only because they are forced to in order to be in compliance. If they could avoid providing these services, they would. I worked in another middle school where the program was more clearly defined, and therefore more sincere and much more effective. The program in this school is not very effective ... the kids are not receiving the education they should be getting."

Observations of Field Interviewers

Feedback from our field interviewers also reflected the status of bilingual/E.S.L. services in different schools. For example, interviewers' perceptions of three elementary schools ranged from "highly isolated" to "highly integrated":

> "The bilingual program exists as a separate entity in a school which emphasizes gifted and talented students, creating an atmosphere of competition. Staff morale is not great."

> "Being so few, LEP students may feel isolated. Except for a secretary and a teacher who speak Spanish, there are no people who speak the language, especially for the Haitian-Creole students. They definitely lack training on how to teach LEP students. Teachers do the best they can, but the district office needs to provide more guidance."

> "The bilingual program is very much integrated in the school. The A.P. and principal are strong believers in bilingual education. In the district, the school is referred to as the "bilingual" school because it has a strong program. There are also LEP students who are not served by the bilingual program -- for them there are not many resources. Among them are 21 percent of the Spanish-speaking students. They have applied for a Two-Way grant for next year."

Sensitivity to LEP Student Needs

The majority of respondents across schools considered school staff to be sensitive to the needs of LEP students, a factor which has been shown to contribute to the success of LEP students (Cummins, 1986; Freire, 1973). All teachers of self-contained monolingual classes and over half of the teachers of self-contained bilingual classes reported that the school administration was sensitive to LEP student needs.

Over three-fourths of the teachers in departmentalized classes also considered the school administration to be sensitive to the needs of LEP students. Teachers who regarded their administration as insensitive included teachers from both schools with full bilingual/E.S.L. programs and schools with few LEP services.

Administrators' Responses. Most school administrators (18 out of 21) regarded their schools as sensitive to LEP student needs. Only two reported that they were not. This was true regardless of the type of instructional programs or support services offered by the school. Sometimes teacher and administrator perceptions within the same school conflicted with each other.

When asked to describe the qualities and features that made bilingual/E.S.L. services effective for LEP students, administrators most often described the care and commitment of the teachers of LEP students, rather than citing specific teaching approaches or methods. One administrator commented:

"If the teacher's attitude is positive, that attitude is conveyed to children ... teachers who believe in children can get good results, even without materials. They are resourceful and go beyond the call of duty."

Administrators frequently pointed out that many teachers were bilingual themselves, and therefore related well to the students' experiences. Administrators reported that this also seemed to increase the cultural sensitivity of the faculty who then encouraged students to draw on their own experiences and culture, making frequent cultural comparisons in their instruction.

Administrators also mentioned qualities of LEP students themselves as an important part of the effectiveness of bilingual/E.S.L. services, noting that the were very eager and often had high attendance and motivation. (Non-instructional factors affecting LEP student outcomes are discussed in greater detail in Chapter VII.)

Indicators of Sensitivity/Insensitivity. All respondents described ways in which administrators demonstrated both sensitivity and insensitivity to LEP student needs. The majority of the responses were positive. These included:

- cooperation among staff and administrators;
- administrator's attitude and behavior towards teachers of LEP students;
- attending to teachers' needs; supporting E.S.L. and bilingual teachers;
- fostering creative freedom to construct useful and interesting ways in which to instruct LEP students;

- provision of resources and materials;
- funding and development of special programs.

Some research studies suggest that LEP students do better in schools where the teachers and students share a common culture and language (Au & Jordan, 1981; Snow, 1990; Wong, 1979); or when the ethnicity of administrators and support staff reflect the ethnic make-up of the student population (Ada, 1986). Confirming this perspective, a number of administrators in our survey also cited cultural sensitivity and identification with LEP students' culture on the part of the principal, especially in those schools where the principal was a former LEP student.

The few negative comments were mostly criticisms of how LEP students were not a priority and how they were left out of the administrators' decision-making process.

THE MAINSTREAMING PROCESS

As another indicator of how well "integrated" bilingual/E.S.L. services were in the 21 sample schools, we asked teachers and administrators to discuss the process by which LEP students were mainstreamed into "regular" monolingual classes and to comment on how well they thought LEP students performed academically after being mainstreamed.

According to administrators, E.S.L. teachers, and teachers of self-contained bilingual classes, most students were placed into "regular" monolingual classes. In fewer cases, they were placed in "transitional" or "remedial" classes. At the time

this study was conducted, few LEP students had been placed in transition classes (for those scoring between the 21-40th percentile on the LAB), most likely because the new mandate had only been in place for a short period of time. In 1991, however, the number of LEP students in transition programs increased in the New York City Public Schools system. Krashen (1985) has noted in his bilingual program model that the use of "sheltered English" classes is an effective practice as LEP students gain greater English-language proficiency.

When asked about the process by which placement decisions were made, administrators gave a variety of responses. LEP students were reportedly integrated into mainstream classes through:

- teacher planning conferences,
- the assignment of students to appropriate teacher(s) by the Assistant Principal, or
- placement decisions made by individual advisors.

Half of the teachers of self-contained bilingual classes said they monitored the progress of their former LEP students by speaking to and maintaining contact with the current teacher, as well as by reviewing records and talking to parents.

Teacher Perceptions of Mainstreamed LEP Students' Success

About half of all types of teachers responded to this topic; this poor response rate may have been due to the fact that schools may not formally track LEP students' progress once they have left the bilingual program.

Teachers differed in terms of their perceptions of how well

LEP students performed academically after being mainstreamed into "regular" monolingual classes. The five teachers of self-contained monolingual classes who responded to this question indicated that "almost all" of their LEP students were able to function successfully in monolingual classes. In contrast, teachers of self-contained bilingual and departmentalized classes had more varied responses (i.e., "some", "most", or "almost half" of former LEP students were considered successful in monolingual classes). The variation in responses to this item may be due to several reasons. Specifically:

(1) LEP students in self-contained monolingual classes had already been mainstreamed and might already have had greater English proficiency than their counterparts in bilingual classes.

(2) In schools with bilingual programs, teachers in self-contained bilingual classes might have been able to more accurately assess their LEP students' academic performance since they could communicate with students in their native language. In addition, as noted earlier, the needier (0-20 LAB percentiles) LEP students might have been more likely to be placed in the self-contained bilingual classes. Thus, the teachers' responses might have reflected the students' greater needs.

(3) Since teachers in departmentalized classes generally only have contact with LEP students for one period per day, they may not have had sufficient time or opportunity to track the progress of former LEP students.

Despite the limited number of teachers who answered this question, the responses seem to indicate that no formal follow up exists in many schools to monitor LEP students' progress after they are mainstreamed. As a result, it is difficult to know whether mainstreamed LEP students make adequate progress or

whether they still need additional support.

Indicators of Success or Failure

Teachers and administrators who estimated the proportion of former LEP students who moved successfully into monolingual classes, described a variety of indicators of student success. Academic performance was the most frequently cited reason -- often stated in terms of grades, percentage of students in enriched programs, positive teacher feedback, or even participation in the Westinghouse science fair. A number of teachers also cited language-specific indicators such as greater fluency in English, higher LAB scores, time spent in monolingual classes, and good communication with teachers. A number of teachers also mentioned emotional adjustment, affect, behavior, self-esteem, and/or self-expression. A few noted graduation, going to college, and attendance.

Few teachers or administrators mentioned indicators of failure. Those who did, cited not using or understanding English, or not staying in monolingual ("regular") classes. Low academic performance and short attention span as well as absenteeism were also cited as indicators of failure.

SCHOOL-BASED PLANNING

A third indicator of the degree to which services to LEP students are viewed as part of the total school program is whether or not planning for LEP students is seen as integral to the school-based planning process (Carter & Chatfield, 1986). Our survey asked both administrators and teachers whether or not

there was a school-based planning committee, whether they served on it, and whether the committee included bilingual and E.S.L. services in its planning for the school.

While virtually all school administrators reported that their school had a planning committee, teachers in the same schools were not always aware of its existence. In seven of the schools where the administrators reported that there was a planning committee, all the teachers interviewed were aware of the committee's existence. In the 13 remaining schools, however, from one to three teachers either claimed there was no committee or that they did not know whether there was one or not.

Teachers of self-contained monolingual and bilingual classes were more likely to indicate that their school had a planning committee than were the teachers of monolingual or bilingual departmentalized classes. Given the much larger size and administrative complexity of the middle and high schools, these teachers might be less likely to be informed about the planning process than teachers in the smaller elementary schools.

Staff Who Served on the School-based Planning Committee

Seventy-five percent of the administrators indicated that they served on their school's planning committee while only 45 percent of the teachers reportedly served on such a committee. The teachers of LEP students in departmentalized monolingual content area classes were more likely to have served on their

school's committee than other groups of teachers.

Planning for School Services

Sixteen of the school administrators reported that their school provided support for school-based management and/or planning in at least one of the following four ways:

- by requiring staff to attend meetings at which issues related to school-based management and planning were discussed (in 15 of 16 schools);
- by supporting committee decisions (in 11 of 16 schools);
- by providing free time and class coverage for meetings (in ten of 16 schools); or
- by assigning staff to liaison roles (in eight of 16 schools).

In five of the 16 schools, there was strong support for the planning committee (support was provided in all four ways). In six of the schools, moderate support was provided (in three ways), and in five schools, support for the planning committee was weak (only one way).

Only one administrator reported that the school did not support the planning committee. The administrators in four other schools noted that the planning committee had recently been formed and thus was not fully operational.

Planning for Bilingual/E.S.L. Services

Sixteen administrators reported that their schools' committees included planning for bilingual/E.S.L. services; two said they did not plan such services and the other two did not know or respond.

Sixty-three percent of the teachers reported that the

committee in their school planned for bilingual/E.S.L. services. Not surprisingly, bilingual and E.S.L. teachers in both self-contained and departmentalized classes were most likely to report that their school's committee included planning for bilingual and E.S.L. services. Monolingual teachers, as might be expected, were less likely to report that the planning activities of the committee included bilingual or E.S.L. services. This may reflect the fact that monolingual teachers were (1) in schools where fewer bilingual/E.S.L. services were offered; or (2) were less oriented to discussing issues related to the progress of LEP students.

Thus, three indicators -- i.e., school status, the mainstreaming process, and school-based planning -- of how effectively bilingual/E.S.L. services were integrated into the various sample schools revealed that the schools varied considerably in terms of the level of acceptance of these services on a staff/administrative level. Some schools had a positive school climate in terms of bilingual/E.S.L. services while in others these services seemed to be somewhat isolated from general school activities.

IX. CONCLUSIONS AND RECOMMENDATIONS

As noted earlier, we found the 21 sample schools to be very heterogeneous in many respects -- e.g., LEP student populations, configurations of bilingual and E.S.L. services, school climate, etc. Both the findings from the field survey and the effective practices highlighted in the research literature indicate that full bilingual programs provide the most effective instructional approach for LEP students. At the same time, the changing student demographics in the New York City Public Schools along with the proliferation of languages spoken by LEP students, indicate a need to provide classroom teachers at all school levels with research-based staff development in E.S.L. methodologies.

In addition, the findings from the schools participating in this study, as well as effective practices discussed in the research literature, suggest numerous ways in which these and other New York City public schools can provide LEP students with more effective bilingual and E.S.L. services. Based on this information, the evaluation team proposes the following recommendations:

(1) <u>Document academic achievement of LEP students more systematically</u>.

Greater attention needs to be paid to documenting the academic progress of sufficient numbers of LEP students in order to assess program impact. As part of the Chancellor's

minimum English language acquisition standard for LEP students, schools must demonstrate progress in this area each year. This data will be documented longitudinally in future School Profile reports. In addition, the use of the translated versions of the New York City Mathematics Test as well as the new Spanish language arts test (for students who are receiving instruction in Spanish language skills) needs to be monitored for use by schools in order to document academic progress in content areas. Expansion of the use of "alternative assessment measures" for LEP students should also be considered. The relatively low numbers of high school LEP students who were reported as taking the Regents Competency Tests, including the alternative language versions, warrents further investigation as well.

(2) Monitor for compliance.

Expansion of required citywide monitoring and review of schools is recommended where the number of unserved LEP students is large. The availability of resources for such monitoring is, of course, dependent on budgetary constraints.

(3) Facilitate teacher certification.

To address the problem of teacher shortages in the area of bilingual education, the following actions may be effective. (Staff development recommendations for bilingual and E.S.L. training are discussed in Recommendation # 4.) Of course, provision of these services is dependent upon available

financial resources.

(a) Increase outreach and recruitment for State Education Department summer immersion program for teachers with monolingual certification.

(b) Increase outreach and recruitment for State scholarship programs for college students preparing to teach in shortage areas, including bilingual and E.S.L. education;

(c) Develop collaborative programs with local colleges and universities, especially the City University of New York, to encourage students to complete necessary credits for bilingual certification and to design attractive program concentrations;

(d) Work with State Education Department to review certification requirement for bilingual areas, especially in pupil personnel services.

(e) Develop a mechanism to review and approve post-secondary courses and degrees completed in other countries. Develop short-term English immersion and education-preparation programs for immigrants with post-secondary credentials from other countries.

(f) Expand career-ladder programs for bilingual paraprofessionals in conjunction with the City University of New York;

(g) Expand outreach and recruitment efforts for teachers with bilingual skills who have not completed the coursework for bilingual certification.

(4) Expand staff development strategies.

Depending on the availability of resources, the following types of staff development activities could enhance the effectiveness of teachers working with LEP students, either in bilingual or monolingual classes:

(a) District, school, and central staff developers might plan to provide training for teachers of all types in assessment and diagnosis in order to help them more effectively group LEP students and individualize instruction.

(b) The evaluation team recommends that central, district,

and school staff developers become familiar with alternative models of classroom organization (e.g., cooperative learning, class-wide peer tutoring) in order to enhance the range of teaching strategies and effectiveness.

(c) Because LEP students in monolingual self-contained "regular" classes only receive an average of one period of E.S.L. a day, training in E.S.L. methodologies, as well as the use of appropriate materials, would help teachers in these classes to provide more meaningful instruction to their LEP students. It may also be appropriate to include such teachers in bilingual staff development activities.

(d) School principals and/or district superintendents might organize a "buddy system" for teachers or schools whereby school and district bilingual and E.S.L. staff can mentor one another as well as monolingual staff, as appropriate, in the areas of E.S.L. and cultural awareness and sensitivity.

(e) With central support, districts might provide training for all teachers in E.S.L. techniques. This will enable them to better teach content areas to LEP students as they become more proficient in English (as indicated by LAB scores in the 21-40th percentile range). It may also be appropriate to provide more opportunities for teachers to obtain E.S.L. licensing.

(f) Since teachers expressed a strong need to have more materials appropriate to LEP students. Districts, in collaboration with schools and central offices, might organize materials-sharing networks or pair schools together to share materials and techniques. In addition, districts/schools can frequently schedule training workshops from commercial publishers of bilingual/E.S.L. textbooks and materials.

(g) Training in cultural awareness and sensitivity for teachers of LEP students could be provided through a variety of modalities: school-based, district workshops, or college courses. Such training could also be incorporated in pre and in-service training requirements.

(5) Initiate more transitional bilingual programs for LEP students in the 21-40 LAB percentile range as specified in the Chancellor's Special Circular No. 42.

The evaluation team recommends that the transition from native-language to all-English content instruction be a structured one and monitored. As LEP students gain proficiency in English and score in the 21-40 LAB percentile range, it is appropriate to provide an increasing amount of content area instruction through E.S.L. methodologies.

(6) Experiment with different approaches to scheduling E.S.L. classes where full bilingual classes are not feasible. Principals and teachers may want to consider establishing self-contained E.S.L. classrooms -- either "bridge" or on the same grade level -- for LEP students who have been placed in "regular" monolingual classes because their native language background is not represented in sufficient numbers in the school to qualify for self-contained bilingual classes. This would help alleviate the problem faced by teachers of "regular" self-contained monolingual classes who have small numbers of LEP students from numerous native language backgrounds. These students could then be taught the grade-level curriculum through methodologies used by an E.S.L. specialist rather than receiving only one period per day of E.S.L. pull-out/in instruction.

(7) Expand school-based networks of support services. Since LEP students frequently require special non-instructional support, schools may want to incorporate the following approaches into the scope of services they provide such students.

(a) Principals might set a supportive tone by enlisting existing staff, and possibly students and parents, to help LEP students adjust to their new country and learning environment. Some possibilities include creating brochures with names of "problem-solvers" in and outside of schools or offering names of "mentor" parents who might agree to share information with newly arrived families.

(b) Guidance staff could develop an in-school "clearinghouse" to facilitate access to support services for LEP students -- resources existing both within the school and on a community level.

(c) As recommended in the literature, schools need to make a greater effort to provide support services in LEP students' native language. As personnel may not be available in the school, contacts with ethnic business groups or local social service agencies may be helpful. For example, the United Way and other citywide umbrella organizations are currently helping schools establish contacts with community based organizations.

(8) Facilitate parental involvement.

Administrators may want to offer General Equivalent Diploma (G.E.D.) or E.S.L. classes for parents of LEP students at the school, either during the day or at night, in order to encourage them to learn English and become more involved in the school and their children's learning. Schools may also want to make special efforts to involve minority-language parents in educational planning by explicitly seeking their input. Local businesses, newspapers, and organizations may help "spread the word." In addition, competitive grants are available for schools to design parent involvement programs (PIP); such programs are currently operating in some SBM/SDM schools. The New York State Adult Education Department also provides funds for programs to develop parent training

programs.

(9) Follow up on mainstreamed LEP students.

The evaluation team recommends that the progress of entitled LEP students who have been placed in mainstream classes be closely monitored by schools in those cases where appropriate bilingual /E.S.L services are still being sought. The mechanisms to allow tracking of former LEP students currently exist, and some systematic review of these students' progress is recommended. This may most appropriately by handled by the Office of Research, Evaluation, and Assessment (OREA) with identification of LEP students provided by individual schools. Information on student outcomes could be reported in the School Profiles, and other reports, to help schools assess how well mainstreamed LEP students are doing.

(10) Encourage school-based planning for bilingual/E.S.L. services.

School administrators need to to assure school-based planning for bilingual/E.S.L. services. Such a focus could help address instructional issues mentioned in this report and provide a way to more fully integrate these services into the school as a whole.

(11) Develop further research studies of LEP student instruction.

For future research, sample selection should be broad and random to ensure a representative sample of programs citywide. In addition, any further comprehensive study of

LEP students should rest on a far more detailed survey of services offered. Developing a typology of programs should include measures of school climate, ratings of service quality, classroom observations, as well as interviews with students and parents.

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APPENDIX A

GLOSSARY OF TERMS

I. CLASSROOM SETTINGS IN SAMPLE SCHOOLS

Self-contained "regular" monolingual class - Students (usually elementary) are in the same classroom all or most of the day. The class is considered to be a "mainstream" class and instruction is provided only in English.

Self-contained bilingual class - Students from the same native language background are together in the same classroom all or most of the day and receive bilingual instruction in language arts and content areas as well as E.S.L. instruction.

Self-contained E.S.L. class - Students from one or more native language backgrounds are in the same class all or most of the day and are taught with an E.S.L. methodology for both language arts and content areas.

Pull-out E.S.L. class - LEP students are "pulled out" of their self-contained "regular" class for E.S.L. instruction, generally for one period a day.

Pull-in E.S.L. class - E.S.L. teacher is "pulled in" to a self-contained "regular" monolingual class to provide LEP students with E.S.L. instruction, generally for one period a day.

Departmentalized "regular" monolingual class - Students (generally middle or high school) meet for one subject area, usually for one period per day. They are considered to be mainstream classes and subjects are taught in English.

Departmentalized bilingual class - LEP students from the same native language background meet for one subject area, usually for one period a day. Bilingual instruction is provided.

Departmentalized E.S.L. class - LEP students from one or more native language backgrounds meet for one subject area, usually for one period a day. E.S.L. methodologies are used.

"Bridge" class - Students from more than one grade level are placed in the same class for common instructional purposes (e.g., E.S.L. instruction for LEP students from different native language backgrounds).

II. CONFIGURATIONS OF BILINGUAL/E.S.L. SERVICES OFFERED TO LEP STUDENTS IN THE NEW YORK CITY PUBLIC SCHOOLS

(1) Full bilingual services:

- E.S.L. instruction;
- Native language communication arts (N.L.C.A.); and
- Bilingual content areas (math, science, social studies)

  - for LEP students in the 0-20th LAB percentile: instruction given primarily in the student's native language;

  - for LEP students in the 21-40th LAB percentile: instruction given in students' native language "as needed."

(2) Partial bilingual services:

- E.S.L. instruction; and
- Either N.L.C.A. or bilingual content area instruction.

(3) Free-standing E.S.L. services (or E.S.L.-only):

- E.S.L. instruction one period per day on a "pull-out" or "pull-in" basis; and
- Content area instruction in English, either in a "regular" or E.S.L. monolingual class.

III. A SAMPLER OF E.S.L./BILINGUAL INSTRUCTIONAL APPROACHES

E.S.L. INSTRUCTIONAL APPROACHES:

Communicative Approaches - Approaches which focus on the development of interpersonal communication skills in order to encourage social interaction in the target language. They include both the Total Physical Response and The Natural Approaches.

Total Physical Response (TPR) - Total Physical Response techniques involve: (1) the teacher giving commands in the target language, while simultaneously acting them out and (2) the students demonstrating comprehension by correctly following the teacher's commands. Simple commands (e.g., close the window) are made increasingly more complex (would you mind closing the window?). Students are not required to speak initially, but as speech emerges, they begin to give commands.

Natural Approach - This approach involves acquiring language through comprehensible input. Specifically, the teacher focuses on the needs and desires of the children, requiring them to speak only when they are ready. The teacher also accepts the student's native language and provides little overt correction. In order for students to acquire greater language proficiency, instruction includes the use from the beginning of pictures, manipulatives, games, problem-solving and humanistic activities. TPR techniques are also used.

Content-based - This approach focuses primarily on developing academic language skills in the subject content areas by using the content of the school subject to teach language.

Grammar/Translation - In this "older" approach, the emphasis is on teaching reading and writing skills with little concern for oral language development. This method is primarily grammar-based and involves memorizing vocabulary lists.

Notional/Functional - The Notional/Functional Syllabus views language as a skill which can be used to accomplish functional tasks such as giving and receiving informaiton, expressing opinions, and socializing. Students are taught the language necessary to combine functions with notions. Notions are general semantic categories, e.g., existential, spatial, or temportal, or specific categories such as personal identification, relations with other people, or travel.

Counseling/Learning - An instructional approach built on the principles of human psychology in order to provide students with learner security. The goal is to create a cooperative learning environment in which students are responsible for each other and discussions can take place in the student's first and second languages. This method also includes group problem solving with lessons generated by the students themselves. However, it is not generally used with children.

Audiolingual - An older, more "traditional" method of language instruction which is still used in some public schools. Teachers model sentences which the students repeat many times so that the model becomes fixed in their memories.

The Language Experience Approach (LEA) - Originally developed as an initial reading program for English-speaking children, this approach provides a guided language experience in which students produce reading material based

on their own interests and activities. They recount stories or describe their artwork, and the teacher writes their words verbatim. These student-produced stories are used as reading material and language development activities.

The Whole Language Approach (WLA) - A general language-learning appraoch which can be applied as an E.S.L. methodology. This method often incorporates LEA. A major difference concerns the relation of oral to written language; while LEA stresses oral language, WLA emphasizes both writing and speaking.

Eclectic - An approach where the teachers use a combination of methods for instructing LEP students.

BILINGUAL INSTRUCTIONAL APPROACHES:

Transitional Model - Students receive native language arts and content area instruction along with E.S.L. until they place out of the program.

Maintenance Model - Students receive content area instruction in both languages for a number of years (e.g., throughout the primary grades). This model is regarded by researchers as more effective than the transitional model because it allows for the development of cognitive-academic language proficiency over a longer period of time.

Two-Way Enrichment Model - LEP and English-speaking students are placed in an integrated bilingual classroom and learn each other's language. This model is intended to provide language "enrichment" for both types of students.

Alternative Approach - In this approach, the two languages of instruction are completely separated. Three methods used in this approach include:

- Alternate day - classes alternate the language of instruction each day;
- Alternate half day - students receive a half day of instruction in the first language and later receive instruction in the second language;
- Alternating by subject area - students are taught each subject area in the language they best understand.

Preview-Review Approach - This approach is mainly used in team teaching situations. A lesson is introduced in one language and then presented in the second language. Both

languages are used interchangeably to review the lesson. It has been criticized as a repetitive, inefficient use of time since students have to wait for the translation.

Concurrent Approach - A teacher uses both languages interchangeably to teach content areas, or two teachers may team teach one lesson, each modeling a different language. This approach has been criticized by some researchers as one where teachers primarily teach in English rather than in the students' native language. Consequently, the 'new concurrent approach' was developed to ensure a more equal use of both languages and to use code-switching consciously and appropriately.

Code Switching - While this method reflects the natural speech patterns of bilingual individuals, it has been criticized as linguistically confusing if not executed appropriately. In this approach, both languages are part of the curriculum and the lesson plans and events influence the language to be used. Code switching can occur at the word, phrase, clause, or sentence level and requires that participants be fluent in both languages.

IV. INSTRUCTIONAL APPROACHES BASED ON CLASSROOM ORGANIZATION

Cooperative Learning - Students are divided into small groups within the same class in order to work together on various learning assignments. While this approach is not specific to bilingual education, research has shown that this type of small group instruction facilitates language acquisition and can be used across subject areas, grade levels, language groups, and cognitive abilities. Types of cooperative learning include:

- Classwide Peer Tutoring - Systematic paring of students into teams of two to six members whereby students who are more proficient in English serve as tutors and resources to the other LEP students. The tutor's own learning and self-esteem are also reinforced.

- Jigsaw - All groups in the class are given the same task (e.g., mastery of a reading document). Each group member is given responsibility for a separate part of the assignment. Students with the same assignments from different groups can then work together after which the student returns to his home group. This method is best for learning text.

- Cooperative Projects - Best suited for analytical and critical thinking activities, this method requires that students work on a group project preselected from several options.

- Learning Together - A framework for applying cooperative learning principles involving interdependence among students, individual accountability, and the students' use of collaborative skills and working with others.

- Cooperative Interaction - This method requires students to work on individual assignments while interacting with other students. Students are graded individually rather than as a group.

Individualized Instructional Approaches - Individualized learning approaches have also been found to be effective for LEP students. However, it is important when these methods are used that students not feel isolated from the class. Typical methods include:

- Personalized System of Instruction (P.S.I.) - Designed primarily for college-level students, P.S.I. uses self-pacing techniques and requires unit mastery in order to proceed to new material.

- Precision Teaching - Similar to P.S.I. in terms of organizing instruction according to the needs of the individual student, it differs in its use of ongoing assessment as a means of modifying instruction.

APPENDIX B

This Appendix provides a descriptive summary of LEP student achievement patterns in reading and mathematics in the 21 sample schools participating in the field survey based on data from the Fall 1989 School Profiles.

SCHOOLWIDE ACHIEVEMENT PATTERNS

Reading Achievement/D.R.P.

The D.R.P. is administered to all general education (and certain special education) students in grades three through ten. In the sample schools, the proportion of students reading at or above grade level (at or above the 50th percentile) varied from 22 to 89 percent:

- Three of the five elementary schools had higher proportions of students scoring at or above grade level than schools citywide (50 percent).
- All eight middle schools had lower proportions of students scoring at grade level compared to the citywide average of 49 percent.
- Five of the seven high schools had lower proportions of students scoring at grade level than the citywide average of 56 percent.

Mathematics Achievement/MAT

The MAT mathematics test is administered to all general education and specific special education students in grades two through eight. The proportion of students in our sample schools scoring at or above the 50th percentile varied from 16 to 90 percent.

- In four of the six elementary schools, the percentage of students scoring at or above grade level on the MAT exceeded the citywide average of 63 percent.

- In all eight middle schools, the percentage of students scoring at or above grade level was lower than the citywide average of 44 percent.

LEP STUDENT ACHIEVEMENT PATTERNS

LEP Students' Mathematics Achievement/MAT

Since many LEP students are exempt from taking the MAT, data on the math achievement of the LEP students in our sample schools were quite limited. The following findings must therefore be interpreted cautiously due to the low number of students for whom we have data. However, larger numbers of middle school LEP students took the MAT; therefore these data are relatively more informative than the elementary school data. The findings are reported separately for students in the 0-20 percentile range on the English LAB, and those who fall in the 21-40 ("transitional") range.

- In three elementary schools, the proportion of (0-20) LEP students scoring at or above grade level on the MAT exceeded the citywide average for LEP students of 30 percent.

- In three elementary schools, the proportion of transitional (21-40) LEP students scoring at or above grade level on the MAT exceeded the citywide average for transition LEP students of 44 percent.

- In three middle schools, no (0-20) LEP students scored at or above grade level on the MAT.

- In three schools, no transitional (21-40) LEP students scored at or above grade level on the MAT.

- In two middle schools, the proportion of (0-20) LEP students scoring at or above grade level on the MAT exceeded the citywide average of 17 percent.

- In three middle schools, the proportion of transitional LEP students scoring at or above grade level on the MAT exceeded the citywide average of 23 percent.

LEP Students' Gains in English Proficiency/LAB[1]

The percentage of LEP students in the 21 sample schools who made more than six normal curve equivalent (N.C.E.s) gains on the Language Assessment Test varied from 0 to 83 percent.

- In three elementary schools, the proportion of students gaining more than six N.C.E.s on the LAB exceeded the citywide average of 60 percent.
- In two middle schools, the proportion of students gaining more than six N.C.E.s on the LAB exceeded the citywide average of 51 percent.
- In three high schools, the proportion of students gaining more than six N.C.E.s on the LAB exceeded the citywide average of 46 percent.

HIGH SCHOOL ACHIEVEMENT/R.C.T. READING AND MATH

All general education and some special education students take the Regents Competency Test (R.C.T.) in mathematics beginning in grade nine and the R.C.T. reading test beginning in grade eleven. Students are allowed to retake the R.C.T.s until they pass them. LEP students who enter the school system after the eighth grade are allowed to pass alternative exams. Our data suggest that very few LEP students actually take the R.C.T.s in a given year. In the seven sample high schools, the proportion of students, both LEP and non-LEP, who passed the reading R.C.T. varied from 60 to 94 percent, and the proportion

[1] These LAB scores refer only to LEP students who scored below the 21st percentile.

of students who passed the R.C.T. math test ranged from 35 to 77 percent.

- Only three high schools had R.C.T. reading pass rates that exceeded the citywide average of 78 percent.
- Only four high schools had R.C.T. math pass rates that exceeded the citywide average of 53.7 percent.

As mentioned above, very few LEP students in the sample schools were reported as taking the R.C.T. mathematics test. Of those LEP students who took the math test, the passing rates varied from 0 to 100 percent.

- In only two high schools did the R.C.T. math pass rates for LEP students exceed the citywide average of 41 percent.

There were no available data on LEP students' performance on the R.C.T. reading test.

APPENDIX C

This Appendix lists the subjects taught by the 70 departmentalized teachers who were interviewed in the 21 sample elementary, middle, and high schools. The subjects and number of teachers are categorized by language arts and content areas as well as by school level.

LANGUAGE ARTS

Elementary Schools

6 E.S.L. specialists teaching pull-out/in classes

Middle Schools

9 E.S.L. teachers
5 N.L.C.A. teachers
1 E.S.L. & N.L.C.A. teacher
1 E.S.L. & "regular" English teacher
1 E.S.L. & remedial reading teacher
1 E.S.L. & bilingual science teacher
1 N.L.C.A. & Spanish-as-a-second language teacher
1 Chapter 1 reading & remedial English teacher

High Schools

3 E.S.L. teachers
4 N.L.C.A. teachers
2 E.S.L. & N.L.C.A. teachers
2 "regular" English teachers
1 E.S.L. & E.S.L./"regular" social studies teacher
1 French, E.S.L., & N.L.C.A. teacher
1 E.S.L., N.L.C.A., bilingual math teacher
1 E.S.L. & remedial reading teacher
1 remedial English teacher
1 N.L.C.A. & bilingual teacher
1 French Teacher

CONTENT AREAS

MATHEMATICS

Middle Schools

2 regular mathematics teachers
1 bilingual mathematics teacher

High Schools

1 "regular" monolingual mathematics teacher
1 bilingual mathematics (+E.S.L. & N.L.C.A.) teacher
(also listed under language arts)

SCIENCE

Elementary Schools

1 bilingual & monolingual science teacher

Middle Schools

2 bilingual science teachers
1 bilingual science & E.S.L. teacher
(also listed under language arts)

High Schools

1 bilingual science & N.L.C.A. teacher
(also listed under language arts)
1 E.S.L. science teacher
2 E.S.L. & monolingual science teachers

SOCIAL STUDIES

Middle Schools

1 bilingual social studies & N.L.C.A. teacher
1 bilingual social studies & math teacher
1 bilingual social studies and monolingual home economics teacher

High Schools

2 "regular" social studies teachers
2 bilingual social studies teachers
2 E.S.L. social studies teachers
1 "regular" and bilingual social studies teacher
1 "regular" and E.S.L. social studies teacher

MISCELLANEOUS SUBJECTS

Middle Schools

1 "regular" home economics teacher
1 bilingual hygiene teacher
1 bilingual hygiene, "regular" technology and home economics teacher
1 bilingual math, social studies, and science teacher

High Schools

2 bilingual math and science teachers